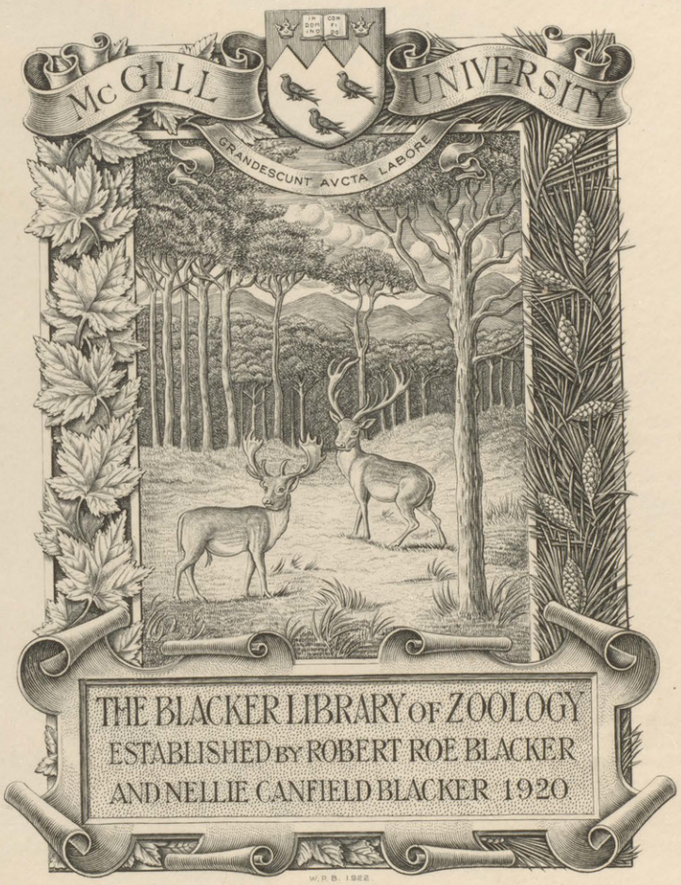
PRESENTED TO THE LIBRARY
BY
COL. CASEY A. WOOD, M.D., LL.D.

McGILL UNIVERSITY LIBRARY
O +1W85r

ACC. NO. 273669 REC'D 1932



For the Blacker Library
McGill University

Rebinding + postage paid by

DR. CASEY WOOD,
ZOOLOGICAL LIBRARY,
BRITISH MUSEUM (NATURAL HISTORY),
CROMWELL ROAD,
LONDON, S.W.7.

London. OCT 3/31.

Volume I.

DR. CASEY WOOD,
AUTHORS' CLUB,
LONDON, S.W. 1,
ENGLAND.

Rough corrected manuscript



AN INTRODUCTION TO THE LITERATURE OF VERTEBRATE ZOOLOGY

based chiefly on the titles in the BLACKER LIBRARY OF ZOOLOGY, the Emma Shearer Wood Library of Ornithology, the Bibliotheca Osleriana [the Gest Library of Chinese Literature], and other Libraries of McGill University, Montreal, Canada. Compiled and edited by CASEY A. WOOD, M.D., LL.D., *Collaborator, Division of Birds, Smithsonian Institution.* 4to, pp. xix + 643. Col. frontispiece. Oxford University Press, London, 1931. Fifteen dollars or three guineas.

As an example of a few steps in book making during the period 1925-31 and to preserve a memorial of the work of preparing manuscript for the press and its subsequent conversion into a printed and bound book for general distribution, as well as to give an idea of how it was received by scientific men, three volumes have been evolved, as follows :-

Vol: I. Samples of the rough but corrected manuscript.

Vol: II. Corrected, revised, final proof-sheets of the whole work.

Vol: III. Correspondence, critiques, etc., relating to the work.

Vol. II.

London, October 13th. 1931.

DR. CASEY WOOD,
AUTHORS' CLUB,
LONDON, S.W. 1.
ENGLAND.

002

AN

INTRODUCTION TO THE LITERATURE

OF

VERTEBRATE ZOOLOGY

BASED CHIEFLY ON THE TITLES IN THE

BLACKER LIBRARY OF ZOOLOGY

THE EMMA SHEARER WOOD LIBRARY OF ORNITHOLOGY

THE BIBLIOTHECA OSLERIANA AND OTHER

ZOOLOGICAL COLLECTIONS OF M¢GILL

UNIVERSITY, MONTREAL, CANADA

A. AN INTRODUCTION TO THE LITERATURE OF VERTEBRATE ZOOLOGY

B. STUDENT'S AND LIBRARIAN'S INDEX TO SELECTED TITLES ON VERTEBRATE ZOOLOGY, ARRANGED IN GEOGRAPHIC AND CHRONOLOGIC ORDER

C. A PARTIALLY ANNOTATED CATALOGUE OF THE VERTEBRATE ZOOLOGICAL TITLES IN THE UNIVERSITY LIBRARIES.

VOL. I

COMPILED AND EDITED

BY

CASEY A. WOOD

OXFORD UNIVERSITY PRESS

LONDON: HUMPHREY MILFORD

1931

Vol. ~~Preface~~ Vol I.

First Rough draft

Introduction

Page the Preface with Roman numerals

Type with one carbon

Double space

Put in accents and breathings

Do not type the names following Chapter headings - leave that until later.]

Feb. 1'30

All titles in this Introduction have been entered to date in the Cat. List and Student's Index.

Go over again for arrangement of chapters etc. Make a chapter on Comparative Zoology. etc

Enter wood F.O. Birds -

273669

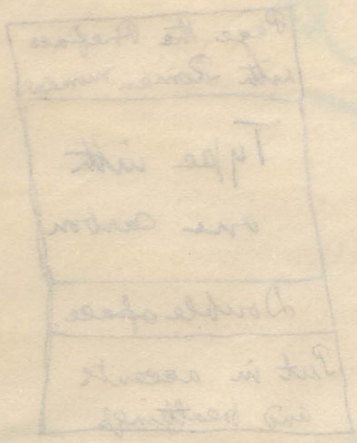


Table of Contents.

Page

Preface . . . . . .

A. INTRODUCTION TO THE LITERATURE OF VERTEBRATE ZOOLOGY . . . . . .

Chapter I. The Beginnings of Zoological Records. Early Greek, Roman and Oriental Zoologists — The Earliest Medieval Writers on Vertebrate Zoology. . . . . .

Chapter II. Medieval Writers on Zoology and their Immediate Successors. . . . .

Chapter III. The Renaissance and its Effect on the Records of Zoological Science. Publications of Natural History Societies and Museums throughout the World. Some Sixteenth and Seventeenth Century Writers on Vertebrate Zoology. . . . . .

Chapter IV. The Literature of Comparative Zoology. The Systematic Classification of Vertebrates. — Darwinism, its Literature, its Advocates and its Critics. . . . . .

Naturarzt. (Berlin, Dresden). 1862-1886?

009

Page

Chapter X. Some Important Treatises published during the Nineteenth Century, continued. Monographs on Local Fauna. Textbooks on Vertebrate Zoology. The Literature of Vertebrate Bionomics .....

Chapter XI. (I.) Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries .....

Chapter XII. (II.) Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries .....

Chapter XIII. (III.) Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries .....

Chapter XIV. The Literature of Zoogeography. Vertebrate Ecology. Vertebrate Paleontology. Animal Psychology. Zoological Gardens, Museums and Stations.....

Naturheilkunde. (Berlin). 1892-1895.

Page

Chapter XV. Important Treatises on Ichthyology from the Earliest Times to the Present .....

Chapter XVI. Selected Titles from the Literature of Herpetology and Amphibiology .....

Chapter XVII. Oriental Literature on Vertebrate Zoology. Codices, Printed Treatises and Lithograms in Persian, Arabic and other Islamic Languages. Sanskrit and Sinhalese writings. Chinese and Japanese Literature on Zoology .....

Chapter XVIII. Periodicals and Serials on Vertebrate Zoology. .....

Chapter XIX. Unique and Rare ~~Atlases~~ Printed Books, Manuscripts and Drawings in the Zoological Libraries of McGill University .....

Naturheilkunde. (Berlin). 1892-1895.

~~ar und Käfig. (Berlin). 1893-1895.~~

Index indicum (Students and Librarians Index) ------

B.

Student's and Librarians Ready Index to short Author-titles on Vertebrate Zoology ~~Systematically~~ arranged Geographically and in Chronologic order ------

C.

A partially Annotated Catalogue of the Titles on Vertebrate Zoology in the Libraries of McGill University ------

Sample of Chapter heading

AN INTRODUCTION TO THE LITERATURE OF VERTEBRATE ZOOLOGY.

Chapter I.

main title caps.

The Beginnings of Zoological Records.--Early Greek, Roman and Oriental Zoologists.--The Earliest Medieval Writers on Vertebrate Zoology.

Aristotle.— Caius Plinius Secundus.— Dioscorides.— Aelian.— Oppian.— The Physiologus.— The Early Moslem Naturalists.— Mesue.— Averroes.— Abdallatif.— Abou el Deschaif.— El Damiri.— The Nuzhat-nāma.— Avicenna.— Early Chinese Writings on Natural History.

AN INTRODUCTION TO THE LITERATURE OF VERTEBRATE ZOOLOGY.

Chapter I.

The Beginnings of Zoological Records.--Early Greek, Roman and Oriental Zoologists.--The Earliest Mediaval Writers on Vertebrate Zoology.

Index

Index

Index

Index

DR. CASEY WOOD,
AUTHOR'S CLUB,
LONDON, S. W. 1.
ENGLAND.

+ Also I am entering here a few periodicals
– to help out the Student – under each general
+continental captions +

+ Also – (to make a roster of Specific + Generic
titles, warblers, whales etc) am adding
some here +

Leave out Titles
of Periodicals

Parker, W. K.

1885. Mammalian Descent

Preface to the Student's and Librarian's

Index.

+ Part of the

Students Index +

What Geog: division & subdivision shall I make. See the one adopted by the Zoological Record.

Periodical literature

and Librarians

Ready Index Short Author-titles of Vertebrate arranged geographically

(Gl.) General or Universal treatise. (Pal.) = paleontology. (Comp. Zool.) = Comp. Zoology. (Exp.) = Travelogue, report of Exploration. (Per.) = Periodical. (Cl.) work on classification or nomenclature. (Pop.) Popular work. (At.) Atlas. (Mus.) = Museum, Natural History collection. (Cat.) Catalogue. (Bib.) Bibliography. (Govt.) Government publication. (Sep.) Separate. Reprint from a publication. (Aristotle, Pliny, Harting) B.C. Aristotle

Universal Vertebrate Zoology.

Mammalogy in General.

Mammalogy - The Americas. (Am.)

Monographs on Species, genera or orders.

Mammalogy - Great Britain (G.B.)

Mammalogy - Continental Europe

Mammalogy - Asia

Mammalogy - Africa

Mammalogy - Oceanica

Periodical Literature.

Ornithology in General.

Monographs on Species, Genera or orders

Ornithology - The Americas

Ornithology - Great Britain

Ornithology - Continental Europe

Ornithology - Asia

Ornithology - Africa

Ornithology - Oceanica

Periodical Literature

Herpetology in General

Ichthyology in General

Miss Bates will make Type Index Index

Students

Preface to Index :-

~~Note:~~ The Introduction mentions and the Catalogue lists and annotates most of the hundred or more titles of county and other monographs on the local vertebrate fauna of Great Britain. The student is referred to these sources for information that lack of space prevents their ~~enlistment~~ entry in this Index.

5

An Introduction to the Literature

of

Vertebrate Zoology.

based chiefly on the titles in the Blacker Library of Zoology, the Emma Shearwood Library of Ornithology, the Bibliotheca Osleriana and the Zoological collections of McGill University

---

A. An Introduction to the Literature of Vertebrate Zoology.

B. Students and Librarian's Index to Selected Titles on Vertebrate Zoology, arranged in Geographic and Chronologic order.

C. Annotated Catalogue of the Vertebrate Zoological Titles in the University Library compiled and edited by

Casey A. Wood.

I

An Introduction to the Literature of Vertebrate Zoology.

based chiefly on the titles in the Blacker Library of Zoology, the Emma Shearer Wood Library of Ornithology, the Bibliotheca Osleriana and other Zoological collections of McGill University.

A. An Introduction to the Literature of Vertebrate Zoology.

B. Students and Librarian's Index to Selected Titles on Vertebrate Zoology, arranged in Geographic and Chronologic order.

C. Annotated Catalogue of the Vertebrate Zoological Titles in the University Libraries

Compiled and Edited By

Casey A. Wood.

6.

1930.

I

II

(Copyright notice)

To my associates in the

Smithsonian Institution.

To my Associates in the

Smithsonian Institution.

Table of Contents.

Page

Preface ---

A. Introduction to the Literature of Vertebrate Zoology ---

Chapter I. The Beginnings of Zoological Records. — Early Greek, Roman and Oriental Zoologists. ---

The Earliest Medieval writers on Vertebrate Zoology ---

Table of Contents

Preface. ---- 1

Chapter I. ---- 4

Preface to Introduction

VII

V

~~Introduction~~ Preface

+ Preface ~~to this section~~ +

Library" ... Hill University, Montreal, ...

Table of Contents

Preface ... 1

Chapter I ...

The main sources of the information to be found in this volume are (first and most) the magnificent Blacker Library of Zoology, the Emma Shearer Wood Library of Ornithology, the Osler Library of the History of Medicine and the Gest Library of Chinese Literature and the general library of McGill University. The Compiler passes (on to say a few words) concerning the origin and character of the Zoological titles in this

The Blacker Library of Zoology was founded in 1921 and later endowed through the munificence of Mr. Robert Roe Blacker and his wife Nellie Campbell Blacker of Pasadena, California. Mr. Blacker was born in Canada and migrated to Michigan where he was engaged in the lumber business. There he married and retired from business to settle in Pasadena where he and Mrs. Blacker have continued to reside. These two highly esteemed and respected citizens have for many years been engaged in various philanthropic works. They certainly deserve (especially) the warm thanks of McGill University and of the California Institute of Technology. Residing in the neighborhood of these great centers of learning they have been actively identified with its many activities and have given much of their time, energy and wealth to forwarding its usefulness and prosperity. In recognition of

Library of McGill University, Montreal, Mr. Guion M. Gest

[illegible] Blacker material and [illegible] in the [illegible]
of Science, McGill University, conferred upon him the
honorary degree [illegible]

[illegible] two-thirds [illegible] of the titles noted in
the appended Catalogue are checked in the stacks of the
Blacker Library, and it now ranks among the very [illegible]
of zoological literature in the America. The endowment
furnished by the donors is sufficient for the continuation of the
[illegible] the many [illegible] zoological serials and periodicals now in
progress and for the yearly addition of the most important
new publications on vertebrate zoology. A more detailed
[illegible] periodical series
[illegible]
[illegible] of which this library has a goodly share,
are found in the various chapters of the present volume.

The aim of the founders is to furnish a combination of
[illegible] material that will meet the varied wants of a University
in which not only the student body but librarians and
the public generally may consult research scholars, quickly
[illegible] nearly
all every work on zoology likely to interest them.

12

18

VIII

The Emma Shearer Wood Library of Ornithology, ~~is~~ ~~was~~ began ~~attempted~~ founded several years prior to the installation of the Blacker collections, forms a sort of supplement to the latter. ~~It was founded~~ It was founded (through her husband) who, although an American citizen, was born in Montreal. As the Shearer family generally ~~had lived most of their life in Chicago~~ have always been closely identified with the life of McGill, ~~and husband~~ it seemed appropriate that this collection should form part of the University library.

The E.S.W. Library was originally intended to furnish as nearly as possible complete sets of ~~The~~ the collection itself is especially rich in ~~periodicals~~ and in addition, a satisfactory array of ~~devoted~~ bird life ~~and has a~~ many of which, as is well known to collectors, have always been difficult to acquire. Consequently, ~~in its choice of~~ ~~natives, classes~~ ~~la~~ ~~are~~ ~~out of print and~~ it happens that the library is particularly rich in these fundamentals necessary to research work in ornithology. In addition the collection shows the usual (and many unusual) ~~directly or~~ indirectly bearing on the avifauna of the world in all the ~~scientific~~ and in several of the ~~principal~~ languages. Arrangements for the acquisition of literature ~~are~~ made, as well as provision for ~~all~~ the works of ~~future~~ appearing ~~the~~ terms, ~~to~~ the advancement of ~~science~~ ~~Both the Blacker and E.S.W.~~ Libraries ~~are~~ ~~separate~~ ~~from~~ the ~~Library~~ ~~proper~~ ~~are~~ to be represented ~~in the~~ ~~Catalogue~~ a trained librarian working under the ~~guidance~~ of the General ~~Librarian~~ director, Dr. Gerhard Lomer.

13

The following account of the Osler Library was written for the London Times by Dr. Charles Singer, an associate of Sir William Osler in Oxford University. As the famous donor of the collection was born in Canada and once held the chair of Physiology in McGill it was an appropriate gift to that University:—

"BIBLIOTHECA OSLERIANA. A Catalogue of Books Illustrating the History of Medicine and Science. Collected, Arranged, and Annotated by Sir William Osler, Bt., and Bequeathed to McGill University. ~~11½ x 9, xxxvi + 786 pp. Oxford: Clarendon Press. London: Milford.~~"

"Sir William Osler was all his life a book collector. During his later years much of his best energies were given to a favourite scheme for the formation of a library illustrating the history of medicine. It was always his intention that this should be presented to his alma mater, McGill University, Montreal. There his books have now been conveyed and his library has recently been opened to the learned public. Osler's scheme centred round what he called the 'Bibliotheca prima'. This was to include all the works of first class and historical importance in the advancement of medicine and the allied sciences. Under this heading he included about a hundred names. They were to be represented

Library" at McGill University, Montreal, Mr. Guion M. Gest

in each case by the first edition and by the most important subsequent editions, together with works illustrative of their history and reception. Grouped round the "Bibliotheca prima' was a 'Bibliotheca secunda' and other bibliothecae classed as 'litteraria', 'historia', 'biographica', 'bibliographica', besides special collections of manuscripts and of fifteenth-century books.

The library is not a very large one - the editors distinguish under 8,000 items - but it is undoubtedly put together with very fine and individual judgment, and forms the true reflex of its collector. There are a few obvious gaps which Osler would certainly have filled had his life been prolonged for even a few months. The pious feelings of the editors have, however, preserved the library as near as possible in the form in which he left it. The library contains about 126 books printed in the fifteenth century, many of great rarity. The manuscripts include a number of documents relating to Osler's own career and a group of oriental medical manuscripts presented to the library by Dr. Casey A. Wood. The preparation of this very full

catalogue has occupied a large part of the time of the editors for some ten years. Apart from its other interests, the extreme patience and accuracy with which the book has been prepared render it a most valuable and, indeed, indispensable bibliographical reference work. The three editors, Dr. W.W.Francis, now Librarian of the Osler Library at Montreal, Mr. R.H.Hill, of the Bodleian Library, and Dr. Archibald Mallack, Librarian of the New York Academy of Medicine, have performed their task with great skill and discretion. Their constant aim of fulfilling the wishes of Osler with exactness and completeness has, we believe, been attained."

16

XII

The Gest Chinese Research Library furnishes a number of oriental works in a subject briefly described elsewhere by the librarian, Dr. Robert de Rasilre de Rolse. Its ~~the~~ This famous collection deserves a somewhat extended notice the compiler of which an account of it given by Prof. Berthold Laufer: —

17.

Library" [illegible] University, Montreal, Mr. Guion M. Gest

18

XII

The Gest Chinese Research Library at McGill

by

Berthold Laufer

Next in number of volumes to the Chinese Division of the Library of Congress the important collection of Chinese literature made by Mr. Guion M. Gest of New York is the most outstanding and most comprehensive and at the same time outranks others in number of rare works in America. It is justly characterized as a research library, as it enables the student to carry on serious and fruitful investigations in almost any department of Chinese civilization as history, literature, religion, and science. All students interested or actively engaged in Chinese research owe a debt of profound gratitude to Mr. Gest for his unselfish devotion to an ideal which he has pursued for many years of his life. Fascinated by Buddhism since the early days of his boyhood, he has maintained a steadily growing intelligent interest in the civilizations of the Far East and created a lasting monument which will be still more profoundly appreciated by future generations as the spiritual bonds connecting us with the Orient will grow more intense.

It was my good fortune to spend two days in the Gest Library at Montreal on July 11 and 12 of this year, and I deem it my pleasant duty to record briefly my impressions of what I saw and learned there.

In bringing together a vast collection of Chinese books and depositing it under the name "The Gest Chinese Research Library" at McGill University, Montreal, Mr. Guion M. Gest

was actuated by two principal motives: (1) to promote through the study of Chinese literature a better understanding of China and a closer relationship and amity, between China and the Western World, it being Mr. Gest's conviction that an entente cordiale between nations can be far better accomplished by education, that is in this case through a knowledge of Chinese literature and civilization of which comparatively little is known and translated, than by any other means. (2) As implied by its name, the object of the Gest Library is to place its books at the disposal of scholars for research-work, especially in cooperation with the faculties of McGill and other universities, as well as with sinologists in the United States Europe, China and Japan. Research-work of this character has already been done in medicine, pharmacology, astronomy, etc. A plan is on foot to found a chair for Chinese language and literature at McGill, which was chosen by Mr. Guion M. Gest because of the excellent and profound research-work accomplished in the different faculties and departments of this university.

The Gest collection is housed in the attractive library building of McGill University, where it occupies a large room on the second floor. The stacks are of steel, arranged in two stories, the upper one being entirely devoted to the great cyclopedia T'u shu tsi ch'êng. The arrangement of the books is so systematic and splendid that any book can be traced at a moment's notice. The reading room is airy and spacious and well equipped. Excellent photographs taken by Mr. Gest himself in the Orient adorn the walls. The floor is laid with Chinese

rugs, and Chinese antiquities in a glass cabinet as well as a reproduction in stone of the famous Nestorian tablet lend the room an intimate atmosphere. The library has a special exhibition room where at the time of my visit a most interesting exhibit of Japanese color-prints and Chinese paintings and manuscripts was shown, including a number of very beautiful Tibetan manuscripts in gold and silver writing from Mr. Gest's collection. It may be mentioned also that in the Art Museum of Montreal Mr. Gest has a very interesting collection illustrating the Lamaist cult of Tibet.

The staff of the Gest Library is formed by Dr. Gerhard R. Lomer, university librarian, and Dr. Robert de Résillac - Roese, who has immediate charge of the cataloguing and pursues his task with a rare zeal and enthusiasm. He is assisted in his work by Miss Swann, a good Chinese scholar, and by a scholar of Chinese nationality, who at present is Mr. Kwei. The library's collaborator in China is Mr. I.V. Gillis who resides in Peking and who has an extraordinary ability as a book-hunter. He was formerly naval attache to the U.S. Legation of Peking.

The Gest Library was informally opened in 1926 on the day of Chinese New Year, February 13th, with an asset of 304 large works consisting of 10,750 volumes. These had been selected by Mr. Ch'ên-Pao-Ch'ên, noted statesman and scholar, tutor of the last Manchu emperor, Hsuan Tung (1908-11). By June 30th, 1929, the collection had increased to a total of 2,054 works consisting of 50,640 volumes.* All these works have been identified, catalogued, doubly card-indexed, labelled, and placed on the shelves in their proper classification sequence.

* Greatly increased since that date.- Compiler.

They are all bound in Chinese cases (t'ao). For these 2,054 works 38 catalogues have been typewritten in triplicate and, correspondingly, two sets of index cards, namely: title cards 4,500; authors' cards, 4,170; total 8,670 cards. Aside from these 50,640 volumes there are 6,000 not yet identified. Another consignment of 5,305 volumes arrived on July 13th of this year at Vancouver, and approximately 15,000 volumes from a famous private library in China are expected the latter part of this summer. Valuable works will be continually added. Beginning from Cat. No. 305 all works were selected by Mr. I. V. Gillis. Excepting a few modern works bought from Peking and Shanghai bookstores, all the works in the collection were formerly in the possession of Manchu princes, well-known statesmen, or bibliophiles.

All books are bound in Chinese style, i.e., cloth cases held together by bone slips (ku tsien). The back of every t'ao is provided with a label, each label giving the following items; name of library; classification number; accession or running catalogue number; romanization or transliteration of title (in Thomas Wade's system);title in Chinese characters, written with a brush; short contents of work; romanization of author's name; author's name in Chinese; if rare or original edition, thus specified; number of volumes, if more than one.

Works are classified(like those of the Library of Congress, Washington, the Bibliothèque Nationale, Paris, and others) according to the socalled "Four Treasure" system established toward the end of the third century A.D. by Sun Hu, keeper of the Imperial Library of the Wei dynasty, and which was followed

by bibliographers and imperial librarians of the subsequent dynasties. In the "Four Treasure" system all Chinese works are classified under four principal categories, (1) canonical literature (king),(2) history (shi), (3) philosophers (tse) (4) belles-lettres (tsi), designated by the capital letters A,B,C,D.

White index cards are used for original works; red cards for works contained in the ts'ung shu, or collections of reprints.

At present the Library has two sets of index cards; title cards and authors' cards. In course of time two sets will be added, namely title and authors' cards in Chinese arranged according to the number of strokes in the first character. In addition to this titles af all works in alphabetical order will be written on cards.

On the title cards the following information is given. In the left-hand upper corner; classification number and call number; title of work in Chinese (written with a brush) running vertically parallel to left -hand side of card; romanization of title, running from left to right at top of card; underneath, concise description of contents of work; name or names of authors in Chinese and romanization, of commentators, writers of prefaces, postcripts; date of first publication; date of issue of edition in question; number of chapters; kind of paper; size in millimeters; in left-hand lower corner, accession or running catalogue-number; to the right on same line; number of t'ao and volume.

Authors' cards are written out in the same manner, with contents of work, etc.

The Library is at present well equipped for research-work It is especially strong in dictionaries, historical works, catalogues, encyclopedias and medicine.

Of rare old editions the following are deserving of particular mention.

Han wen kung k'ao i, collection of works in prose and poetry by Han Yü (A.D. 768-824), compiled by Chu Hi (A.D. 1130-1200), in 8 volumes, issued in the latter part of the 13th century.

T'ung chi, History of China beginning from the mythical emperor Fu Hi down to the end of the T'ang dynasty (A.D. 906) by Cheng Tsiao (A.D. 1108-66), printed in A.D. 1322. Only 50 copies were printed. This edition is rebound in silk covers and interleaved, in 240 volumes. Chi-ta chung siu Sŭan-ho Po ku tu lu, an edition of the Po ku tu lu, an illustrated catalogue of ancient bronzes, printed in the Chi-ta period (A.D. 1308-11), 30 volumes of 33x25cm. Some pages are lost. Most illustrations are spread over two pages, while in the Ming and Ts'ing editions they are reduced to a single page in octave. The Library also has a Ming edition of this work printed in 1588.

Nearly 500 bona fide Ming editions, printed from wooden blocks. Some of these are:

Tse chi t'ung kien kang mu, Outlines of the Annals of History, compiled by Yin Ki'-sin and published A.D. 1473, in 100 volumes.

Tse chi t'ung kien, Annals of History from the beginning of the Fourth Century B.C. down to the end of the Five Dynasties (A.D. 960) by Se-ma Kwang, published A.D. 1544, in 120 volumes.

Li tai kün ch'en kien, Biographies of emperors and high ministers of state, by the emperor King T'ai, published in A.D. 1453 in 32 volumes.

Wen hien t'ung k'ao, Cyclopedia dealing with political economy, government offices, ceremonies, etc., by Ma Twan-lin, published in A.D. 1521, in 80 volumes.

Tung i pao kien, a general compilation of medicine, of Korean origin, by Hü Tsün, printed in A.D. 1577, in 25 large volumes.

Shi wu ki yüan, Cyclopedia bearing on the origin of things selected by Kao Ch'êng of the Sung period, compiled by Yen Ki King, published by Li Kwo in A.D. 1472, in 12 volumes.

An-yang tsi, Posthumous collection of poetry and prose works by Han K'i (A.D. 1008-75), published in A.D. 1514, in 16 volumes.

Ta'i-po tsi, collected poems of Li Po (A.D. 705-762) edited Yang Tse-kien, published in A.D. 1543 (the Kwo Family edition).

Of Palace or Imperial editions, printed on special paper in only 50 copies (volumes in the imperial yellow color), the Library has 48 works. Among these are:

Shu king t'u shwo, Text and explanation of the Shu king, "Book of History", compiled by order of the Empress Dowager richly illustrated; issued in A.D. 1905, 16 volumes.

Ta Ts'ing hui tien, Laws and Statutes of the Tsing Dynasty, compiled by order of the emperor Kwang Su, richly illustrated, ed. of 1887, in 500 volumes.

Ta Ts'ing shi ch'ao sheng sün, imperial edicts and proclamations of the Tsing emperors, from Tien Ming (1616-27)

down to the emperor Tung Chi (1862-75), printed during the reign of Kwang Sü , in 608 volumes.

K'in ting t'si sheng fang lio, Chronicles of the suppression of the various rebels during the T'ai-p'ing Rebellion (1851-65), compiled under supervision of Prince Kung, printed A.D. 1896, in 1,156 volumes.

The original edition of the great Chinese cyclopedia T'u shu tsi ch'êng, compiled between 1686 and 1726, consisting of 5,020 volumes, bound in 502 t'ao; the first large Chinese work printed with movable copper type (the only other complete copy outside of China in British Museum).

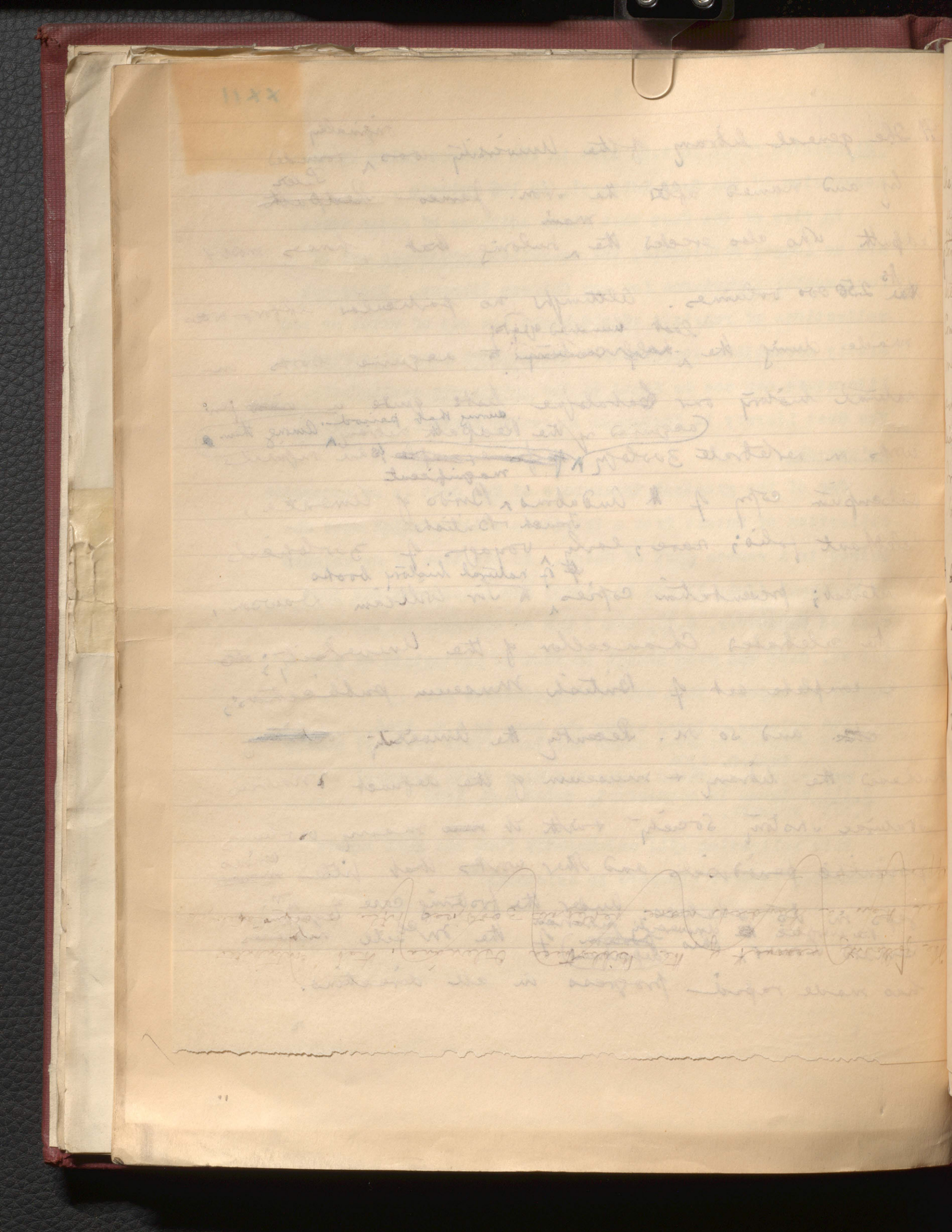
Two copies of the Wu Ying tien chü pan ts'ung shu, a collection of 139 works selected by the emperor K'ien Lung reprinted during 1773-94, the first large Chinese work printed with movable wooden type, in 811 and 600 volumes.

Shi san king, Rubbings from the stone tablets in the Hall of Classics connected with the Confucian Temple, Peking, of the 13 canonical books, the text of which, consisting of more than 800,000 characters was written during twelve years and completed in A.D. 1740 by Tsiang Hong (1672-1743) and by order of Emperor K'ien Lung cut in stone, with imperial writings; in 208 volumes.

The Chen t'ung T'ao tsang, Collection of the works contained in the Taoist Canon, lithographically reprinted on extra white paper, published by the Commercial Press, Shanghai, 1923-25, in 1,200 volumes.

The original manuscript of the Pe'i wen yün fu, Concordance of terms and phrases, compiled in 1704-11, by a board of 76 scholars under personal supervision of the emperor K'ang

¶ The general library of the University was originally founded by and named after the Hon. James Peter Redpath who also erected the main building that houses most of its ~~the~~ 250 000 volumes. Although no particular effort was made during the last hundred years to acquire books on natural history our Catalogue lists quite a number published during that period. Among them are acquired by the Redpath library ~~for example~~ is a magnificent subscription copy of Audubon's Birds of America, French + British elephant folio; rare, early voyages & natural history books of interest; presentation copies from Sir William Dawson, the celebrated Chancellor of the University; the complete set of British Museum publications; ~~etc.~~ and so on. Recently the University ~~has~~ united the library + museum of the defunct Natural History Society with its many valuable scientific periodicals and other works that fill various cases; under the fostering care of the present University librarian Mr. Gerald Lower this department has made rapid progress in all directions.



¶ The McGill libraries, especially the Osterian and medical sections, have a representative collection of works in the extremely interesting and impressively valuable study of Comparative pathology, including text books and other treatises on veterinary medicine and surgery. However, the Compiler does not consider it wise to do more than mention the fact here. The literature of animal diseases, their diagnosis and treatment, apart from a few exceptions listed in the Catalogue for particular reasons, he regards as foreign to the purposes of this Introduction and refers special students to the card indices of the libraries mentioned.

¶ Attention may be drawn here to the Leyman Library of Entomology and a valuable research collection of lectures and periodicals founded and endowed half a century ago by a McGill Governor. This collection completes the array of faunal literature and rounds out the whole series of biological material necessary to the literary life of the University.

~~Introduction~~

The reader is warned in advance that the ~~preliminary~~ Introductory portion of this work makes no claim to the (as yet) unfilled position of a complete study in English of the literature of vertebrate zoology any more than the Catalogue that follows constitutes a fully annotated list of that literature. The Compiler does, however, hope that the McGill libraries have gathered a sufficient number of faunal titles to justify their publication, ~~especially~~ as a basis for an elementary thesis on the literature of the subject. ~~likely to be on~~

Dates
3 numbers
II
XXV

¶ A complete, annotated account of the literature of ~~vertebrate zoology~~ biology might possibly be published in ~~ten or a dozen~~ twenty or thirty folio volumes if carried out with the meticulous care (and marvellous patience) that characterizes, for instance, that remarkable production, Bashford Dean's Catalogue of Fishes, in which not only every monograph but every (periodicals included) contribution from every known source is listed and evaluated. As part of such a herculean task there would undoubtedly be published a like evaluation of the literature of general biology. If ~~we~~ were extended in the course of time to ornithology (with the help of already partially evaluated in Bowers annotated Catalogue of the Ayer Library) (1910 ~~in two volumes~~ 2 vols.) and eventually of mammalogy, and eventually herpetology, and amphibiology, ~~and the not overlooking the not inconsiderable~~ literature on amphibia, ~~and the~~ meantime the present writer offers this Introduction, Index and partially annotated Catalogue as a contribution to the whole subject of vertebrate zoology.

Illes + (?Forbes) Chemex

8vo

Shortly after the beginning of the present task the Compiler began to see as through a glass darkly what Osler perceived at once, viz. that some sort of Index would be necessary in an annotated catalogue of the type he proposed. "The task" he said [of making the Bibliotheca Osleriana] "is perhaps too heavy for one man to undertake; but I am assured by experts that there is no inherent difficulty in such a catalogue provided there is a good index." Later his literary executors reported that "one of the rules laid down by Sir William Osler was that cross-references, except in the index, should be reduced to a minimum. When his scheme was criticised, and manifest objections were raised .... he had a ready if hyperbolic answer "We'll print in large letters at the top of each page, CONSULT THE INDEX FIRST."

Since in the Compiler's case an index might be useful to alleviate or even neutralize some of the bibliographic offenses of which he has been guilty ~~so here it is!~~ in the present undertaking he has

Continued as:

XXVII

No student of zoological literature can be said to have had a liberal education who is not to some extent ~~also~~ familiar ~~with~~ not only of natural book with ~~of~~ book making in general. ~~subjects.~~ Assuming that the Compiler's experience may serve as some sort of guide to this knowledge the following (all in the McGill libraries) short titles among are given as his chief sources of information in the preparation of the present volume:—

Bibliotheca Osleriana, Oxford, 1929. X

Bashford Deane. Bibliography of Fishes

Zimmer. Catalogue of the Ayer Library.

Milne-Edwards. Leçons sur la biologie, 18 vols.

Nordenskiöld. History of Zoology.

Ernest Hirsch-Schweigger. Zoologisches Wörterbuch. Berlin, 1925.

L. Camerano. Materiali per lo studio di Zoologia in Italia nelle prima metà secolo XIX.

L. von Graff. Die Zoologie seit Darwin. 1896.

~~Histoire de Zool~~

Geschichte der Zoologie,)

and its translation, Histoire de Zoologie by Prof

8vo

Continued as:

L

XXXI

XXIX

XXVIII

Schneider. Notes in the [illegible] Geschichte der Zoologie.

D. Sherborn. Index Animalium, London 1902

Geschichte der Zoologie,

Alfred Newton, Dictionary of Birds.

Elliot Coues, Key to North American Birds,

Hoe Lowy: History of Zoology,

~~British Museum Books etc in the Catalogue of the Library, Natural History Museum, Library (Natural History) 1903-1922~~

Max Mosel. A Bibliography of American Natural History, 1924

H. C. Bolton. Catalogue of Scientific and Technical Periodicals, 1665-1895. 2nd. edition, 1897; and as a supplement:-

Wm J. Fox. American Journals omitted from Bolton's Catalogue, 1908.

Mullens and Swann. Bibliography of British Ornithology, Lond., 1917.

~~Weigmann's Archiv f. Naturgeschichte, 1830-to date.~~

~~Engelmann and Taschenberg. Bibliotheca Historico-Naturalis 1808-1886.~~

R. Friedländer. Naturae Novitates. 1879-date.

~~Leuckart u. Chun. 1888-1898; Zoologica, 1897-1932~~

Societatum Litterae. Verzeichnis ---- auf dem Gebiete der Naturwissenschaften (Huth et al.) 1888-1900. 8vo

Continued as:

The following Bibliography is by no means complete, but it includes those works that the compiler found of the greatest help in completing his list of ornithological journals.

~~Bibliotheca zoologica (1887-1897)~~ See Zoologica.

Bolton, H.C. Catalogue of scientific and technical periodicals. 1665-1895. 2nd.ed. Wash., 1897. 7+1247 p. (Smithsonian miscellaneous collections. vol.40.)

British Museum. Catalogue of the books, manuscripts, maps and drawings in the British Museum (Natural history). Lond., 1903+ v.1+

British Museum. Catalogue of the printed books in the library of the British Museum. Lond., 1881-1900. 75 vols., and Supp. 11 vols.

Burns, F.L. comp. Bibliography of scarce or out of print North American amateur and trade periodicals devoted to ornithology. n.p., 1915.

Engelmann, Wilhelm. Bibliotheca historico-naturalis. Verzeichniss der Bücher über Naturgeschichte welche...in den Jahren 1700-1846 erschienen sind...(Index librorum historiam naturalem...) Lpz., 1846, Bd.1. 8+786.p. 8vo.

Continued as:

Bibliotheca historico-naturalis...Supplement-Band, enthaltend die in den periodischen Werken aufgenommenen und die vom Jahre 1846-1860 erschienenen Schriften, (Bibliotheca zoologica... bearbeitet von J.V.Carus...und W.Engelmann.) Lpz., 1861. 2 Bd. 8vo

Continued as:

The following Bibliography is by no means complete, but it includes those works that the compiler found of the greatest help in completing his list of ornithological journals.

Bibliotheca zoologica (1887-1893). See Zoologica.

Bolton, H.C. Catalogue of scientific and technical periodicals, 1665-1895. 2nd.ed. Wash., 1897. 7+1247 p. (Smithsonian miscellaneous collections. vol.40.)

British Museum. Catalogue of the books, manuscripts, maps and drawings in the British Museum (Natural History). Lond., 1903+ v.1+

British Museum. Catalogue of the printed books in the library of the British Museum. Lond., 1881-1900. 75 vols. and Supp. 11 vols.

Burns, F.L. Comp. Bibliography of scarce or out of print North American amateur and trade periodicals devoted to ornithology. n.p., 1915.

Engelmann, Wilhelm. Bibliotheca historico-naturalis. Verzeichniss der Bücher über Naturgeschichte welche...in den Jahren 1700-1846 erschienen sind...(Index librorum historiae naturalem...) Lpz., 1846. 2d.i. 8+786 p. 8vo.

Continued as:

Bibliotheca historico-naturalis...Supplement-Band, enthaltend die in den periodischen Werken aufgenommenen und die von Jahre 1846-1860 erschienenen Schriften. (Bibliotheca zoologica... bearbeitet von J.V.Carus...und W.Engelmann.) Lpz., 1861. 2 Bd. 8v.

Continued as:

Scudder, S.H. Catalogue of scientific serials...1633-1876. Camb., Mass., 1879. (Harvard University - Library. Special publications. 1.)

Severance, H.O. Guide to the current periodicals and serials of the U.S. and Canada. 4th. ed. Ann Arbor, 1920. 564 p.

Societatum litteræ. Verzeichniss...auf dem Gebeite der Naturwissenschaften...Hrsg. von E. Huth [and afterwards A. Hering and M. Klittke]. Berlin, 1888-1900. Jahrb. 1-14.

Wiegmann's Archiv für Naturgeschichte. Ubersucht über Zoologie. Berlin, 1835+ 1+

Zoologica. Hrsg. von R.G.F.R. Leuckart und C. Chun. Cassel,-Stuttg., 1887+ Bd. 1+
Bd. 1-8 (1887-1897) title reads: Bibliotheca zoologica.

Zoological Society of London. Catalogue of the library. 5th. ed. Lond., 1902.

Zoological Society of London. List of abbreviations, with titles, of journals containing papers...of zoological importance. 1922.

Zoologisches Centralblatt. Lpz., 1894-1912. Jahrg. 1-18.

Catalogue of the Library of the Zoological Society. 1902

~~F. L. Burns. Bibliography of Scarce Amateur and Trade Periodicals devoted to Ornithology. 1919.~~

G. R. Lomer and W. S. MacKay. Catalogue of Scientific periodicals in Canadian libraries, 1924.

Union List of Serials, 1927.

U. S. Catalogue of Books, 1929.

The Encyclopedia Britannica; International Encyclopedia; Chamber's Encyclopedia; Encyclopedia Italiana and similar treatises contain many valuable monograph on the various sections and subsections of vertebrate Zoology.

It is not necessary to list here all the standard works of general reference, including those that deal especially with incunabula and other early printed books, but the following will be found most useful: the well known Catalogues of Hain, Pollock, Pellechet, Brunet and others (& similar characters to be found in every properly equipped research library) should be at hand for consultation.

~~Pollock~~

XXXI

As a preliminary study of the subject there is no monograph in English that covers the ground in a more interesting fashion than Geo. Haven Putnam's Books and their Makers during the Middle Ages, 2 vols., 2nd. ed., N.Y. (1896). This monograph gives an illuminating account of the subject from the fifth to the beginning of the eighteenth century and should be read by every student of that important era in book making.

XXIII

Studies in the History of Medieval Science by Charles Homer Haskins, 2nd. ed., Cambridge, 1927, is another volume that the student will find interesting and valuable.

Henry Curwen's illustrated History of [British] Booksellers, 8vo. London (1873) is well worth reading and covers most of the stationarii of Great Britain from William Caxton to the best known dealers of the nineteenth century.

The Compiler is greatly indebted to many friends for assistance in preparing this volume. First of all he wishes to thank the Librarian of McGill University, Dr. Gerhard Lomer, and his heads of departments for their valuable help. Without their cooperation, the present task could not have been completed.

Dr. Arthur Willey has most kindly written many of the annotations of non-English titles of zoological works in the Library, while Mr. Henry Moseley has evaluated a large proportion of the treatises printed in English. For the remaining notes the Compiler is responsible. The Librarian of the Department of Natural History kindly assigned authorities of the British Museum, a room and equipment to the Compiler and his secretary for a year's work on the Introduction and Catalogue.

In addition Mr. Basil H. Soulsby and his assistant, Mr. H.W. England, placed the resources of their invaluable collections of natural history at the Compiler's disposal and in the arrangement of the evaluated card catalogue of periodicals by the U.S.W. Library of Ornithology that has had the benefit of Miss Margaret S. Mackay's unusual knowledge of the greatest assortment of periodicals.

The Compiler is also greatly indebted for advice and help in the present undertaking to Dr. Chas. W. Richmond and Dr. Alex. Wetmore and others, in particular:-

Systematic treatises on the history and processes of vertebrate

AN INTRODUCTION TO THE LITERATURE

OF VERTEBRATE ZOOLOGY.

AN INTRODUCTION TO THE LITERATURE OF VERTEBRATE ZOOLOGY.

Chapter I.

The Beginnings of Zoological Records. – Early Greek, Roman and Oriental Zoologists. – The Earliest Medieval Writers on Vertebrate Zoology.

~~Prefatory Matter.~~ ~~Purposes and Limitations of the Introduction.~~ – Works of Reference advised. ~~Bibliographical Literature~~

2-2
#3

Several thousand years before the Christian era frescoes and rock cut pictures of animals were produced by primitive artists. One of these, taken from an ancient tomb at Maydum

→ ~~Henry Anderson. 1845~~ →

~~D., M., M.A.~~
1900. Animals of Africa.
8vo. London

Is this same as number?
Date different. 1909?

in Egypt presents with great fidelity a flock of geese. The compiler of this Introduction has seen in several Egyptian temples , monuments and tombs similar animal portraits that vie in beauty of portraiture with many modern pictures. Assyrian monuments also show animal pictures though they are not , as a rule, so well executed.

in Egypt presents with great fidelity a flock of geese.

The compiler of this Introduction has seen in several Egyptian temples , monuments and tomba similar animal portraits that vie in beauty of portraiture with many modern pictures. Assyrian monuments also show animals pictures though they are not [illegible] so well executed.

The first serious writer on zoology whose works have survived is Aristotle (384--322 B.C.) The books that have escaped the ravages of time and the neglect of man are only a fraction of the great naturalist-philosopher's output; It is unlikely that we shall recover the Ζωικά and the Ἀνατομικά in which he probably described more fully the animals with which he seems to have been acquainted, but we do know that this famous writer of the early Greek period greatly influenced scientific thought throughout the middle ages and our own times. Sundevall estimates that this versatile observer described more or less fully 70 mammals, 150 birds, 20 reptiles 116 fishes, 60 insects and arachnids, 24 crustaceans and annelids and about 40 moluscs and radiates.

Aristotle made a rough classification of his birds into eight principal categories; his follower Pliny the Elder

The first serious writer on zoology whose works have survived is Aristotle (384--322 B.C.) The books that have escaped the ravages of time and the neglect of man are only a fraction of the great naturalist-philosopher's output; it is unlikely that we shall recover the Δημοκ and the Λογοι Τομικοι in which he probably described more fully the animals with which he seems to have been acquainted. But even this famous writer of the early Greek period influenced scientific thought throughout the middle ages to our own times. Sundevall estimates that this versatile observer described more or less fully 70 mammals, 150 birds, 20 reptiles 116 fishes, 60 insects and arachnids, 24 crustaceans and annelids and about 40 molusca and radiates.

Aristotle made a rough classification of his birds into eight principal categories; his follower Pliny the Elder

BM. Cat.
1888-6
which I.III.

relying entirely upon characters taken from the feet divided them into three.

~~(Notes Zoology of the Ancients and Medievals not yet written).~~

However

¶ Three centuries were to elapsed before this second ~~another~~ outstanding figure in zoological literature appeared. Caius Plinius Secundus (23-79) ~~(23-79)~~ or, as we know him best, Pliny the Elder, was the author of a Historia naturalis in 37 books, most of Liber X being devoted to birds. This discursive writer acknowledges his indebtedness to Aristotle, but, so far as we know, he made many additions to and improvements upon the works of his great predecessor. ¶ An excellent review of the Birds of Pliny and Aristotle will be found in Evans' edition with notes of Turner's Birds.

¶ Yet another century passed before we find a third ancient authority of special prominence, viz. Aelian. (fl. ca. 140 A.D.) Although an Italian his works were written in Greek. He added very little to our knowledge of ancient zoology, although he refers to the writings of several other naturalists (whose works have not survived) showing that the study of animal life in the early centuries of our era had its share of followers.

Oppian (2nd Century + life dates) has written at least one natural history poem in the guise of a treatise on fishing and hunting. A good edition is the Greek text ~~Oppiani~~ printed ~~with~~ with a Latin translation and voluminous notes by J.N.B. de Ballu, Argentorati, 1786. The Latin title reads Oppiani Poemata de venatione et piscatione. printed folio,

~~Ray Lankester in his article in the Encyclopedia Britannica, (10th. ed. p.799 et. seq.). No defines the word zoology as that section of biology that relates to animals as distinguished from that portion that is concerned with plants.~~ points out the pathetic and childish delight and wonder with which the people of early civilizations gathered and treasured stories of strange animals from distant lands, and instances among the fables the best known of the early mediaeval ~~of Albertus Magnus and of~~ the Physiologus, ~~and other~~ (treatises on animals in which moral traits are ascribed to them) Bestiaries as examples of this primitive credulity.

(Encyclopaedia Britannica. Ninth Ed. Vol. XXI. pp.552-3)

The Bestiary is a mediaeval treatise on animals, ascribing moral traits to certain of them.

"Physiologue" is the title usually given to a collection of some 50 allegories much read in the middle ages and still existing in several languages and in numerous editions.

~~devoted to [illegible] research in the literature of~~ Zoology.

¶ Certain Christian teachers took an interest in natural history, partly because of passages in Holy Writ that they wished to explain and partly on account of the supposed divine revelations in the book of nature of which it is man's duty to take proper advantage. But the early Christian writers were far removed from scientific methods, and instead of consulting Aristotle and other observant naturalists, they quoted Aelian and similar works of the imagination in which scraps of folk-lore, travellers' tales and fragments of misapprehended science were set forth in what was regarded as an elegant style.

They took these fairy tales of the "naturalist" for gospel truth and tried to make the best of them for religious instruction.

Several of the Fathers - Clement, for example, followed this plan, and wrote a curious mixture of zoological descriptive matter and theological sermonizing. They told of beasts and birds that had no existence as a basis for churchly teachings of about the same scientific standing and value.

¶ Among the many editions of the Physiologus is a ~~The Physiologus, a~~ metrical ~~[illegible]~~ codex of twelve chapters by Bishop Theobald, (from A.D. 1022-1035 Abbot of Monte Cassino, Italy). This variant ~~[illegible]~~ copied and has been printed and re-printed many times since the first ~~[illegible]~~ manuscript appeared. A very good, annotated and illustrated English translation of the Cologne, 1492, edition is by A.W.Rendell, London 1928. The characters, physical, moral and mental, of twelve birds and beasts reviewed from the medieval standpoint are quaintly developed in this curious work, one of the most popular animal folk-lore works of the middle ages. The numerous printings of the Physiologus, including one in old-English, are fully listed by Choulant (Handbuch der Bücherkunde für die ältere medizin, Leipzig 1841.)

¶ The mythical Ant-lion furnishes a fair example of the zoology of the Physiologus. Of course this beast is not the insect we know, but "his father hath the shape of a lion, his mother that of an ant; the father liveth upon flesh, and the

[illegible] Zoology.

mother upon herbs. And these bring forth the ant-lion, a compound of both, and in part like to either; for his fore-part is that of a lion, and his hind-part like that of an ant. Being thus composed he is neither able to eat flesh like his father nor herbs like his mother; therefore he perisheth from inanition." This description is then followed by an ingeniously constructed moral.

The Physiologus was not only popular but appealed to the imagination of the multitude long after it ceased to have the support of the Church as a respectable work of piety. It also furnished material for artists and architects engaged upon cathedrals and other ecclesiastical buildings, especially in ornamentation of the walls and furniture.

~~Physiology~~

The chief emblems of the original Physiologus.were as follows :- "(1) the lion (footprints rubbed out with his tail; cubs first receive life three days after birth by their father's breath); (2) the sun-lizard (restores its sight by looking at the sun); (3) the charadrius (presages death or recovery of patients); (4) the pelican (recalls its young to life with its own blood); (5) the owl (or nykticorax, loves darkness and solitude); (6) the eagle (renews its youth by sunlight and bathing in a fountain);

essential to an ~~study~~ research in the literature of ... Zoology.

(7) the phoenix (revives from fire); (8) the hoopoe (redeems its parents from the ills of old age); (9) the wild ass (suffers no male but itself); (10) the viper (born at the cost of both its parents' death); (11) the serpent (sheds its skin; puts aside its venom before drinking; is afraid of man in a state of nudity; hides its head and abandons the rest of its body); (12) the ant (orderly and laborious; prevents stored grain from germinating; distinguishes wheat from barley on the stalk); (13) the sirens and onocentaurs (compound creatures; see Isaiah XIII, 21,22); (14) the hedgehog (pricks grapes upon its quills); (15) the fox (catches birds by simulating death); (16) the panther (spotted skin; enmity to the dragon; sleeps for three days after a meal; allures its prey by sweet odors); (17) the sea-tortoise (or aspidochelone; mistaken by sailors for an island); (18) the partridge (hatches eggs of other birds); (19) the vulture (assisted at birth by a stone with loose kernel); (20) the ant-lion (likely to perish of hunger because it cannot subsist on either vegetable or animal diet alone); (22) the unicorn (caught only by a virgin); (23) the beaver (lets fall its testes when pursued); (24) the hyena (a hermaphrodite); (25) the otter (enhydris; enters the

[illegible] Japan [illegible] paper
[illegible] essential to a ~~study~~ research in the literature of [illegible]
Zoology.

crocodile's mouth to kill it); (26) the ichneumon (covers itself with mud and so lies in wait to kill the dragon - a version of No. 25); (27) the crow (takes but one consort during life); (28) the turtle-dove (same nature as No. 27); (29) the frog (either living on land, ~~or~~ when it may be killed by rain, or in the water without ever seeing the sun); (30) the stag (destroys its enemy the serpent); (31) the salamander (quenches fire); (32) the diamond (powerful against all danger); (33) the swallow (brings forth but once; a misreading of Aristotle, Historia animalium, vol. 13); (34) the tree called peridexion (protects pigeons from the serpent by its shadlow); (35) the pigeons (of several colors but led by one of a purple or gold color); (36) the antelope (or hydrippus; caught by his horns in the thicket); (37) the fire-flints (of two sexes that combine to produce fire); (38) the magnet (that adheres to iron); (39) the saw-fish (sails in company of ships); (40) the ibis (fishes only along the shore); (41) the ibex (descries the hunter from afar); (42) the carbuncle (called "the diamond again"; found only by night); (43) the elephant (conceives after partaking of mandrake; brings forth in the water; the young protected from the serpent by the father; when fallen is lifted up only by a certain small individual of its own kind); (44) the agate (employed in pearl-fishing):

essential to ~~an study~~ research in the literature of ... European languages
Zoology.

(45) the wild ass and ape (mark the equinox); (46) the Indian stone (relieves patients of the dropsy); (47) the heron (touches no dead body, and keeps to one dwelling place); the sycamore (the wild fig; grubs living inside the fruit and coming out); (49) the ostrich (devours all sorts of things; forgetful of its own eggs). Besides these, other and later versions contain sections of unknown origin about the bee, the stork. the tiger, the woodpecker, the spider and the wild boar."

However ridiculous they now seem, early collectors and writers were the founders of zoological science, so that all through the succeeding centuries - including our own times - the naturalist-explorer and the author work hand in hand and play an important rôle in the progress of zoology.

As will be seen by the numerous works that include zoological treatises in the Bibliotheca Osleriana ~~the relations between~~ lower-animal life and human structures were, in the medieval mind, closely related. Indeed we largely owe the important province of modern comparative anatomy, physiology and psychology to the fact

essential to research in the literature of Zoology.

that in the Middle Ages parts of animals as well as plants were regarded as "simples", to be employed like any other remedy. This fact explains the very noticeable and intimate association in literature between medieval medicine and medieval zoology. The physician - as the name indicates - was necessarily a naturalist and all his tides of learning - such as they were - flowed towards a study of "things" as they were - de proprietatibus rerum - in the realm of nature. Bound by traditional chains - as was the whole world of Science during the Dark Centuries - he had, perhaps, more than any other student of life, fitful visions of biological truth, inspirations that at the renaissance became clearer and clearer figures out of the night of superstition and ignorance. Thus we find that during the past four or five centuries medical men have been distinguished by the quantity and quality of their contributions to biological literature in all its departments.

¶ In discussing the therapeutic merits of animal products the animals themselves were often described and pictured, thus giving the treatise a definite place in zoological literature.

In the early ~~days~~ centuries, however, ~~Shortly afterwards~~ the world of science was ~~illuminated~~ enlightened by a new luminous light, ~~that appeared on the ocean~~ the rising sun of Mahommedan enterprise.

15

¶ The Blacker Library, the Osler Library ~~Bibliotheca Osleriana~~ and the E.S.W.Library of Ornithology are well supplied with manuscripts and printed works (mostly in Arabic, Persian and Hindustani) that furnish a full account of the zoological literature of Arabia and its dependencies during the early, flourishing period of Moslem learning. ~~Soon~~ Before the days of Mahomet there were in Syria and Egypt, Greek-Christian and (probably) Greek-Hebrew schools, medical and other, and although the victorious Mahommedans closed most of these seats of learning the advancing hosts absorbed much of their doctrines and such of their teaching methods as were not in conflict with the dogmas of the Koran and incorporated them into their own publications. Thus the celebrated Rhaza (El Razi) tells us that a physician, Mesuë (Aboru ben Masoweih), who died about 857 A.D., wrote a work whose Latin translation was entitled De Animalibus. Of the many Arabic authors that followed this early writer the best known is Avicenna. ~~(1000-1037)~~ (980-1037), who paraphrased the Zoologia of Aristotle and added to that great work many original observations, ranking as a naturalist writer with the ~~equally famous~~ famous Arabian, Averroës. (1126-98).

~~essential to an study~~ research in the literature of vertebrate

3 zoology.

~~Systematic Classifications before Linnaeus.~~

The Compiler has ~~already sketched~~ retrieved, ~~all too briefly,~~ the literature of some pre-Linnean efforts to classify animals

~~(Arabian biology)~~

Averroës (Ibu-Rushd) was born in Cordova in 1126, the son of a learned judge. In his native city, for many centuries the centre of Hispano-arabic culture, he studied medicine and law, and was for several years cadi of Seville and, later, governor of a province. If any medieval naturalist is worthy to be called the Aristotle of the Middle Ages it was certainly Ibu-Rushd. Dante is his Divina Comedia describes Averroës in the court of the heathen by the side of Aristotle, and, as Osler says, he was one of the principal commentators on that authority.

An account of the animals of Egypt, in particular a description of the crocodile and hippopotamus, is furnished by Abdallatif (1162-1231) in a treatise that is not merely a compilation from previous Greek and Latin authors but contains original observations on the animal life of the Nile region.

The Blacker Library has two editions of the works of Sakanja ben Muhammed, called from the district (Kasvin) in northern Persia where he lived, El Kasvini. This natural philosopher lived in the thirteenth century and wrote The Wonders of Nature in which he quotes not only his Persian predecessors but Hippocrates and Aristotle. He is an exponent of the Aristotelian theory of the development of life from lower forms to higher. He described for the first time the orang-utan, the dugong, the flying dog (or fox) and several other new species.

The service rendered by early Arabic writers on natural history was not so much their actual observations of new facts or the promotion of original theories of animal life as in the preservation and diffusion all over the world of the humanistic writings (including the biologic teachings) of the Greco-Roman authors to which they had access. As Nordenskiold points out "through the intermediary of the Arabian philosophers the few learned scholars of the West in the early Middle Ages acquired a knowledge of the products of classicial culture; Aristotle, for instance, was long read at the medieval univer-

sities in Latin versions of Arabic translations from the original writings, and the Arabic commentators, Avicenna, Averroës and others, were the first to act as guides to an understanding of the treatises on nature and to help Europeans to penetrate that world of phenomena whose existence they had entirely forgotten."

The early Middle Ages in Europe - when scientific thought as we now know it was at its lowest ebb - added nothing to zoological research. However, that anonymous production, the Physiologus, a curious folk-lore collection relating to animal life of probable ancient origin, had a most remarkable vogue. We find it in many codical editions translated into every literary language, even into Icelandic and Ethiopian, and some of the animal tales form part of out own literature.

It is not possible here to do more than mention some of the more prominent of the other Moslem writers on natural history, whose works have come down to us mostly in fragmentary form or as ~~more~~ complete codices. Among these we find Abou el Deschahif (ca. 868 A.D.) the author of the Kitab-el-haiwan or "Book of Animals"; Abou Bekr ben Ali Ibu Wahschijah (Xth. cent.) who wrote a treatise whose (Latin) title is Descriptio animalium. Ahmed Ibu Abul Asch'ath (d. 970) is represented in biological literature through a Bodleian MS. ~~Eyes~~ whose (translated) title is Liber de Animalibus. A famous astronomer, Abul Casim el Madschriti of Cardova (d.1007) has left a (Madrid) manuscript entitled Generatio animalium.

Victor Carus also tells us about Abou Mahammed Abdallatif ben Jusuf (1161-1231) who in a description of Egyptian marvels, written in 1203, devoted an entire chapter to a description of animals, based largely on Aristotle.

Moslem ~~writers~~ naturalists, as is well known, delighted in works similar to the Phisiologus and the McGill libraries have several charming Persian and Arabic volumes containing stories based on dialogues between birds and other animals. One of these - a great favorite in medieval times - is a prettily illustrated and illuminated 12mo. giving thirty tales of a parrot, in which this talkative bird regales ~~his mistress~~ the harem with tales of jungle life. Indeed, as late as the early 15th. century a Persian, Schiek Fereddeddin

Attar wrote a "Dialogue between Birds". Another rather important work is that of Abulfath Ali Ibu el-Doreihim (d. 1361) of Bagdad, the Utilitates animalium, divided into four parts; quadrupeds, birds, fishes and insects.

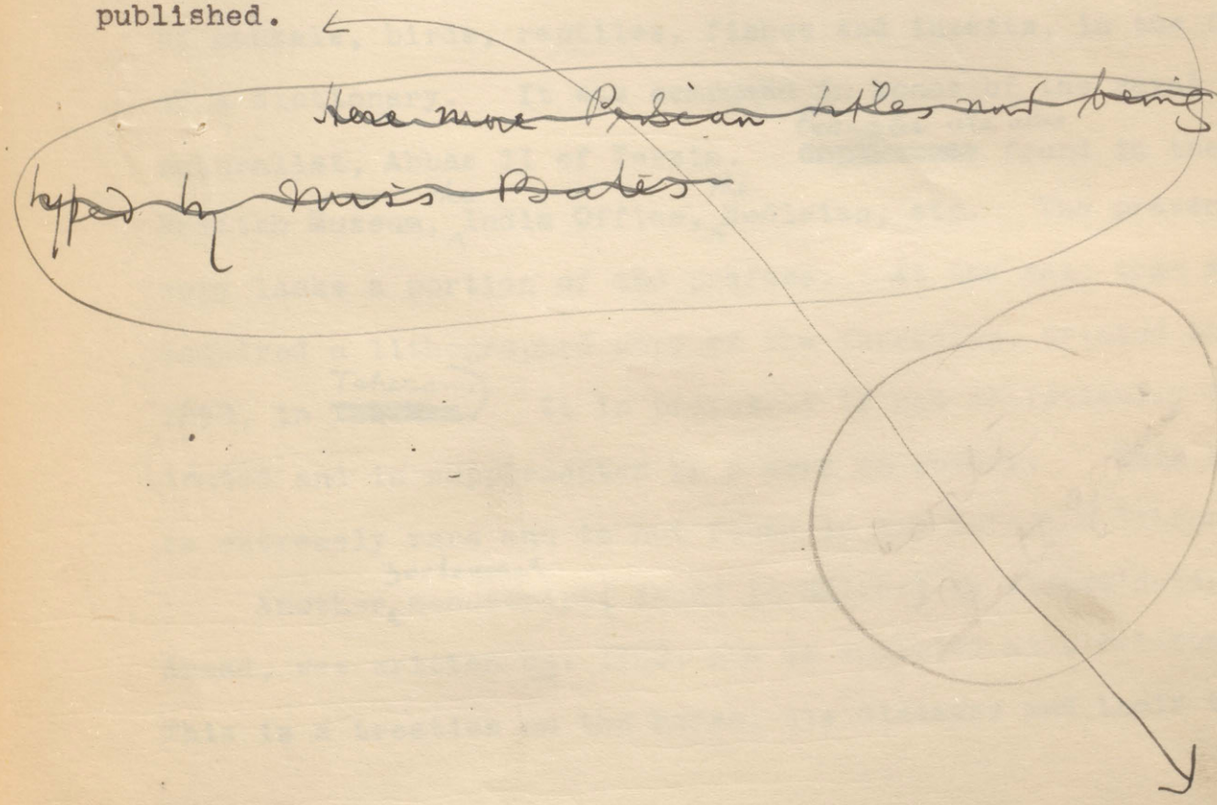
Still Another codex, bearing a similar title but quite different text, was written by Seinneddin el-Hanefi (d.1324).

Last, but no means least, is the well-known work on Zoology, the Hayat ul-Haywan (Life of Animals) by Albulbeka el-Damiri who died in Cairo A.D.1405. The McGill libraries have several editions of this monumental treatise, They also shelve several extracts and partial translations, with comments by various editors ~~which is the most important of a number of volumes~~ reflecting in part original observations of the writers but mostly founded on the teachings of early Greco-Roman codices, to which they not only had access but of which they made a large number of translations. It is upon these that, in some instances, we must wholly rely for all we now know of the lost originals.

~~branched to an study~~ research in the literature of ~~vertebrates~~ Zoology.

further Islamic

¶ Victor Carus gives an ~~interesting~~ account of these naturalistic ~~authors~~, some of whose titles will be found in the famous present Catalogue, including the chief zoological treatises by ~~well-known names of~~ Ibu Sina (Avicenna) and Achmed Ibu Roschd (Averroës). ¶ The Compiler regrets that limited space prevents that extended notice of these Moslem writers that their place in the history of zoological literature ~~history~~ demands. ¶ During three years residence in the Far East he collected for the Blacker Library as many of the written and printed copies of their works as were available, one of which, the Nuzhat Nama, (q.v) ¶ has been translated and a portion published.



Put with under MSS.

22

35.(1)

(Among these ~~Of more importance~~) is an anonymous codex written about 1580 A.D. entitled Kitabu l-haywan. It is a zoological dictionary. The copy in the Blacker Library is incomplete both at beginning and end, so that the exact date of its original compoeition and the name of the author cannot be determined. As it is distinctly different from other works of the kind ~~written in~~ produced during the same period it is probably unknown to cataloguers and, is, consequently, very rare.

Of the manuscripts purchased in Persia (for Mr Gill) is one by Muhammad Taqi, son of Muhammad Tabrīzī ~~ca.~~ dated 1690, the title of which is Khawassu'l-haywan, a study of the medicinal properties of mammals, birds, reptiles, fishes and insects, in the form of a dictionary. It was composed in honor of the royal naturalist, Abbas II of Persia. ~~Copies are~~ Examples are also found in the British Museum, the India Office, the Bodleian, etc. The present copy lacks a portion of the preface. At the same time was acquired a lithographed copy of the foregoing, printed about 1858, in ~~Tehran.~~ Teheran. It is profusely if not artistically illustrated and is supplemented by a work on poetry. This edition is extremely rare and is not found in any European library.

Another Zoological manuscript (found in Shiraz) by Nizamu'd-din Ahmad, was written ca. 1750, and is entitled Midmar-i-danish. This is a treatise on the horse, its diseases and their treat-

~~Essential to a study~~ research in the literature of veterinary Zoology.

ment, on amulets for horses, etc. It was composed in 1660 A.D. and is dedicated to Abbas II of Persia.

Another acquisition is a very rare edition of a well-known work by Prince Tīmūr-Mīrzā Qājār, published in 1890, the Bāz-Nāma-I-Nāsirī. This treatise on falcons and hunting birds in general has been reprinted and translated many times and is one of the standard works on falconry.

Also purchased in Shiraz is another anonymous manuscript of recent date, entitled Tibbu'l-haywān. It is on veterinary Medicine and Surgery and is useful for determining the meaning of the terms one meets with in Arabic and Persian works on zoology. As there is no proper introduction the author's name, date of composition and the formal title are not mentioned. The copy (or original) is not found in the usual catalogues, so that the present copy of the treatise may be unique. There is a table of contents at the end of the book and the caligraphy is good.

The influence of Chinese literature on occidental faunal publications has been practically nil and yet elaborate books - both printed volumes and codices - were produced in China for many centuries and greatly affected the art and and science of the great Empire as well as Korea and Japan. The librarian of the East Library of Chinese Literature in McGill - the largest of its kind in America has kindly contributed a review of the 3 oriental works in its collection, a contribution that is introduced into its chapter on Chinese works on Persian Zoological literature.

3 zoology.

essential to [illegible] research in the literature of vertebrate

Chapter II .

Some Medieval Writers on Zoology and their immediate Successors.

Frederick 11.- Albertus Magnus and his contemporaries.- Vincent de Beauvais.- Thomas de Cantimpré.- Bartholomaeus Anglicus.- Megenberg's Buch der Natur.- Edward Wotton.- Dame Juliana Berners.- The Hortus Sanitatis.- Conrad Gesner.- Ulysse Androvandi.- Rondelet.- Pierre Belon.- Fabricius ab Aquapendente.- Marcus Aurelius Severinus.- ~~Harvey.- Malpighi.- Swammerdam.- Hook.~~

¶ Partly ~~In part~~ because of the impetus given to literary production by the Saracen invasion we notice a general European revival of interest in the natural history of Aristotle and other early writers. This ^ foreruner of the later renaissance did not dispel many of the clouds of ignorance and superstition that had settled on occidental lands but the 13th. century may be taken as the period of ^ a noteworthy ~~re-birth.~~ ^ if temporary, scientific revival. ¶ The annals of the chase, and especially ~~the~~ descriptions of falconry and other forms of hunting furnish rather good accounts of the animals involved. That interesting codex the De arte venandi cum avibus of the Emperor Frederick II is a case in point, and there were many others in which original observations of local fauna are recorded. Fairly good descriptions of the fishes and insects known to naturalists in the thirteenth century are also ~~recorded~~ given, although the former are, in some instances, not readily identified.

Many accounts, long and short, have been written of the life and acts of that remarkable medieval personage, the famous Emperor Frederick ~~Second~~ II of Hohenstaufen, but the Compiler is aware of no review of his career superior to the brief outline ~~written by~~ contained in Erik Nordenskiöld's summary :-

"Italian in his upbringing, half oriental in his habits and mode of thinking, he gathered —

life dates

Zoology.

round him learned men from the East and West. He had Aristotle's writings translated from the Greek into Latin and founded a school of medicine at Salerno, where for the first time since Alexandrine days human bodies were dissected. He himself wrote a book, still extant, on falconry, a sport to which princes and nobles were passionately addicted. Frederick's treatise is far more than a mere dissertation on hunting; in a lengthy introduction he gives an account of the anatomy of birds, in which he not only displays a knowledge of Aristotle's anatomical writings, but is also able to point out inaccuracies in his statements; further, he describes ~~the~~ avian habits ~~of various birds, the~~ (and the) movements of migratory birds, etc. Unfortunately Frederick lived during the period of ecclesiastical reaction in the thirteenth century, and after his death his priestly ~~[redacted]~~ opponents eradicated most of the cultural progress he had achieved; the dissection of human bodies was again prohibited and physicians had henceforth, as before, to rely on the classical authorities. The translation of Aristotle which he caused the learned Michael Scotus to carry out was perhaps the most enduring evidence of his cultural aims; it was on this work, in fact, that the scientists of the later Middle Ages in general based their learned studies."

The accompanying Catalogue lists several editions of ~~the~~ the well-known treatise on falconry referred to above. ~~The~~

~~[redacted]~~ research in the literature of ~~[redacted]~~ Zoology.

~~129.~~

(apart from the Arabian lux ex oriente,

Of the faint flickers of originality that lit up the gloom of the Dark Ages was furnished by a nun, the celebrated Hildegarde of Bingen (1098-1180). She wrote the Physica (see Chas. Singer's Studies in the History and Method of Science) which contains popular but more or less personal notes on animals and plants, and the use man can make of them.

whose name is familiar

A naturalist to students of medieval literature is ~~[illegible]~~ Albertus Magnus (1200-1280). His real name was Albert von Ballstädt. He joined the newly-formed order of Dominicans, became a professor in Paris and, finally, bishop of Regensburg. Retiring to the quiet of a monastic cell he devoted his life to science as it ~~as it~~ was then conceived, and particularly to "harmonizing" the writings of Aristotle with the teachings of the Church. A more important service we owe to Albertus Magnus, edidit flammam, he kept alive and encouraged an interest in nature herself at a time when the minds of men were powerfully and exclusively directed to some supernatural world in or beyond the skies.

Although the revival of interest in such humanistic studies as those supplied by Aristotle was ~~quite marked in this period~~ noticeable towards the end of the Middle Ages, it must not be forgotten that most of the teaching bodies were ecclesiastic in character and opposed to original research or an expression of any opinion not fathered by an all-powerful church. Any departure from this rule was promptly met by fire, sword or cord. This mixed state of mind is discussed by J.G.Schneider in his Aristotelis, historia animalium.

A Victor Carus gives an intereating account of the three Dominican friars that in the 13th. century attempted to furnish the world with all that was really known about the zoology of their time. These were Vincent de Beauvais, Albertus Magnus (1193-1280) and Thomas de Cantimpré. The last named is also known as Brabantius, from his native province. His life dates are 1186-1263 and he wrote a De naturis rerum, a Bonum universale de apibus and several other natural philosophical books, giving them a moral (i.e. ecclesiastic) turn when possible. His treatises must be regarded as among the few medieval books on zoology that ~~make~~ mark progress ~~of~~ in that science. ~~especially when~~

~~one remembers that~~ He catalogues and ~~often~~ describes (often accurately) 110 mammals, 114 birds, 85 fishes, including, of course, the usual number of fabled animals and ~~probable~~ duplications of species under different names. In addition to Aristotle ~~works~~ this author quotes ~~the Physiologus~~ Galen and a number of other medico-naturalists as his sources of information.

The notations following the titles in the McGill libraries attributed to Albertus Magnus furnish a sufficient account of this priest's literary labors, but it may be said here that he was by far the greatest of the triumvirate just mentioned and perhaps less hampered, although a devout Son of the Church, by ecclesiastic shackles than his two contemporaries.

Vincent de Beauvais (Vincentius Bellovacensis) (d.1264), whose Speculum quadruplex in seven folio volumes was first printed in 1473, ~~furnished us with~~ exhibiting a fine example of a voluminous compilation, an immense encyclopedia after the Arabian style. ~~offering~~ He furnishes, with his authorities meticulously quoted, ~~and~~

essential to ~~a study~~ research in the literature of vertebrate Zoology.

a complete review of all the natural, doctrinal, moral and historical data of the times. The seventeenth book describes, in alphabetical order, the birds; the eighteenth the fishes; the nineteenth domestic mammals, the twentieth wild animals, and the twenty-first other animals, including serpents, "reptiles" and worms. The Speculum majus has been several times reprinted, the last edition in 1624.

The foregoing represents only a small portion of the literary activity of medieval naturalists. We may add to the list Gerard de Broglio, Bartholomaeus de Bragantiis and Engelbert d'Admont, all of whom in the thirteenth century wrote codices on the natural history of animals, each of them advances and improvements on the bestiaries of that period.

Mention has frequently been made of that important writer Bartholomaius anglicus. Of course one refers to the earlier writer of that name and not to the de Granville (or Glanville) of a later century. Of the more important Bartholomew we know little

by ecclesiastic conventions and traditions his book exhibits many decided advances on previous treatises. Several reprints and editions of this fundamental treatise have appeared during the past four hundred years.

Let us now glance at the zoological literature of[a] ~~We now reach~~ the comparatively modern epoch, that had been post-medieval era when University teaching ~~and~~ had expanded and liberalized, when thought became freer and, above all, when the invention of printing brought works on natural philosophy both ancient and recent within reach of the many.

The renaissance period of zoological research in Europe was, of course, a part of the New Birth of science. All the currents of independent thought, as opposed to superstition and mere authority, ran towards the River of Doubt and Exploration.

Of those that lived and worked on the borderland of the Old and the New was Edward Wotton (1492-1555), son of a college porter in Oxford University, who rose to distinction as a practising physician. He worked for over twenty years on his De differentiis animalium and proved himself a faithful follower of Aristotle, whose animal classification - viviparous quadrupeds, oviparous quadrupeds, sanguineous animals, non-sanguineous animals, etc. - he accepted. He did, however, reject many of the fabulous creatures whose pictures and descriptions had been handed down from antiquity, although he — die Güte liegt so nah — rarely gives a description of the many new forms that, quite at hand, British explorers were constantly bringing to England. One must, of course, not forget, even in a brief sketch like this, that Wotton was, as a physician, mostly interested in the medicinal uses of the animals he described.

Zoology.

Cuvier thinks that the commentary by Petrus Gyllius (Leyden, 1583) on Aelian should be bracketed with Wotton's work. The former is entitled "Ex Aeliani historia latini facti ..... de vir. et natura animalium", but this claim does not appear justifiable although Wotton does quote Gyllius a number of times, and was probably influenced by his writings.

Recollect that Bartholomaeus Anglicus had fifteen editions before 1500 and six others during the sixteenth century.

Following the invention of printing, Animal dialogues were published in plenty after the style of the medieval Physiologus - the most noticeable one being the Lucidarius (or Elucidarius) attributed to Anselme of Centerbury. The first edition appeared in 1479, since which date many printings of it have been made in almost every European language. It was, in fact, a "best seller" of its day.

¶ Dame Juliana Berners, at one time Prioress of the Nunnery of Sopwell, Herts., flourished about 1460 and wrote treatises on Hawking, Hunting, Coat-Armour, Fishing and Blasing of Arms. These tractates form the famous Book of St. Albans, the first edition of which was printed and published by Wynkyn de Worde in 1496. It is profusely illustrated by excellent woodcuts and has been several times reprinted. In the course of the work the natural history of hunted animals - birds, fishes and mammals - receive attention, thus making it a proper title for a zoological library.

Probably the best account of the life and writings of Dame Berners is given by Josepph Haslewood as a preface to the facsimile edition of London, 1810, a historical research of great zoological value and one well worth reading. This work is now among the rarities but an example will be found in the Blacker Library.

The early post-medieval period was also, it must be remembered, an era of numerous Herbals and faunal pharmacopeias in which not only plants but animal parts were described for their value as remedies in disease. A few of these are of zoological importance because of the description of the animals themselves. Apart from that consideration Kräuterbücher and other herbals do not belong to this ~~work~~ Introduction.

~~a~~ all the European languages essential to ~~a study~~ research in the literature of ~~vertebrate~~ Zoology.

~~Hortus Sanitatis.~~

¶ The titles Gart (Garten) der Gesundheit, Hortus (Ortus) Sanitatis, and Garden of Health have an oriental suggestion. Under the first heading it appears as the earliest printed German Herbal having natural history interests. It had also an important standing as being among the first prints illustrated by woodcuts.

This celebrated natural history treatise was probably a compilation by Johann von Cube, a Frankfurt physician. It was derived from various ancient and medieval sources, notably from the Speculum Naturale of Vincentius de Beauvais, the Etymologiae of Isodorus Hispalensis, and Megenberg's Buch der Natur.

The first edition of the Hortus was published in Mainz (Peter Schöffer) 1485, (Hain 8948), since which date many variants, large and small, have appeared in several languages, including English. Probably the most elaborate edition is the Hortus Sanitatis Major, folio, Mainz, 1491, Jacob Meydenbach, (Hain 8944), 453 leaves, zylographic

essential to research in the literature of botany.

title page, seven full page and over a thousand smaller woodcuts of plants, animals and minerals. As Payne said, it was the model for all subsequent editions. Folio editions with full-page cuts are called "major"; smaller formats "minor" or are not distinguished. Occasionally some of the cuts are colored but these are not as a rule accurate and do not assist in ~~recognising~~ elucidating the ~~subject~~ text.

One of the

¶ ~~The~~ Blacker copy~~s~~ (the second edition) of the Hortus Sanitatis Major, Strassburg, Johann Pryss (ca. 1497) folio, 360 leaves, has three full-page woodcuts, 530 smaller cuts of plants, 164 of quadrupeds, 122 of birds, 106 other animals and 144 of minerals, and the text includes most of the zoological facts of Megenberg's Buch der Natur. The large Initials are rubricated, the woodcuts are old-colored and there are a few contemporary marginal notes. Choulant(1) calls the Hortus the most important illustrated natural history ~~work~~ of the middle ages. Five editions of the Hortus are shelved in ~~are represented by copies~~ in the McGill libraries, two of them incunabula.

Hortus Sanitatis Major. Agentorati, (Ca 1497). Hain 8941.

Hortus Sanitatis Germanice. 1499. Folio. Only 170 leaves. Hain. Defective.

Gart der Gesundheit. Strassburg, 1536. Choulant. Inc.No.28. p.70.

Ortus (Hortus) Sanitatis. 1528 A.D. (Dean Adams) ~~Brunet)?)~~

Facsimile. Gart der Gesundheit. Mainz. 1485. Mit Anhang. Munchen, 1924.

essential to ~~study~~ research in the literature of vertebrate Zoology.

Probably the highest compliment paid to this voluminous compiler is the attempt of the Germans to adopt him with the title of the "Pliny of Germany". As a matter of fact Gesner was born, lived, wrote and died in Switzerland, and was proud to be called a Swiss. Osler refers to him as follows: —

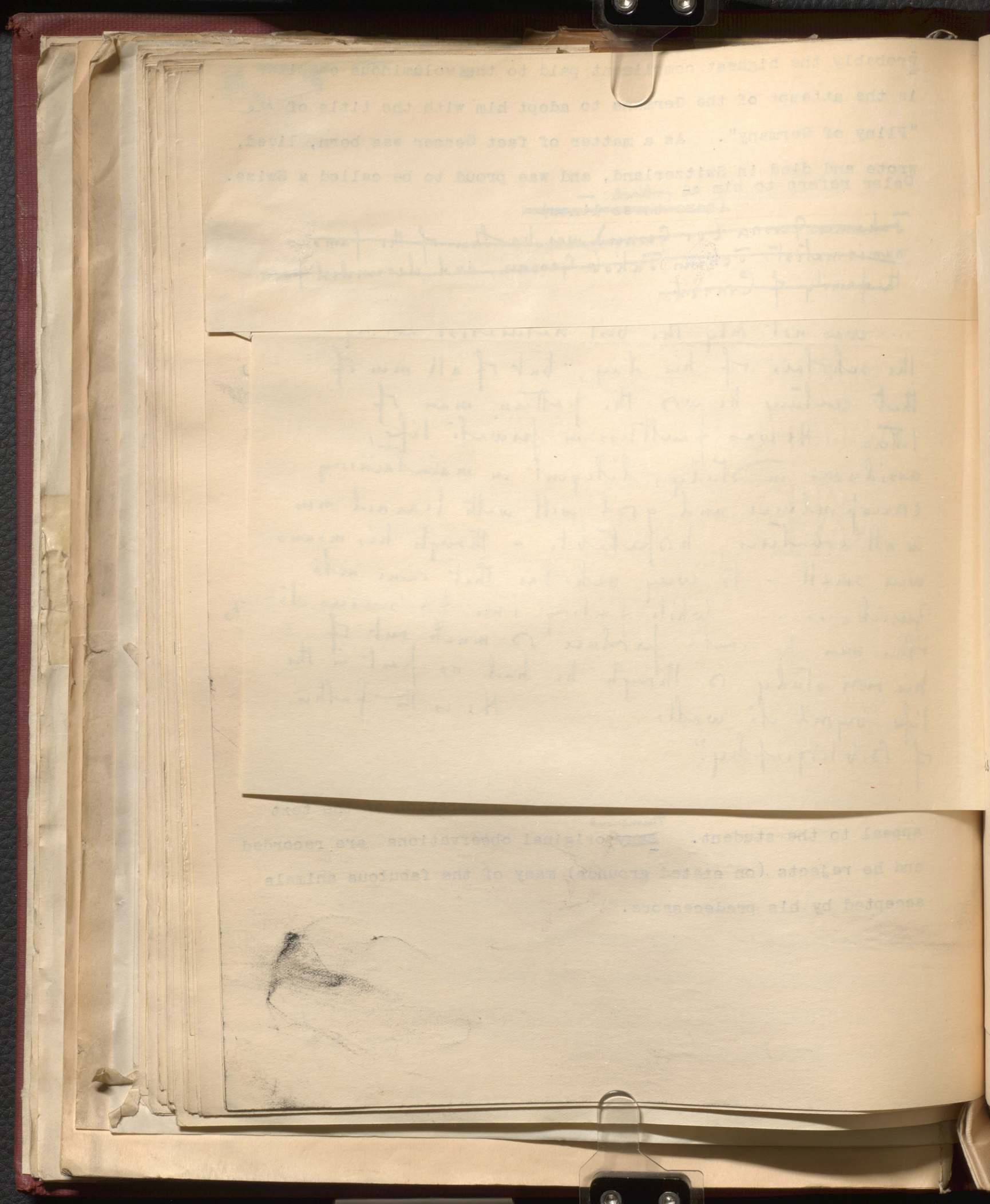
39

"Conrad Gesner, who kept open house, ... for all learned men who came into his neighbourhood .... was not only the best naturalist among the scholars of his day, but of all men of that century he was the pattern man of letters. He was faultless in private life, assiduous in study, diligent in maintaining correspondence and good will with learned men in all countries, hospitable - though his means were small - to every scholar that came into Zurich..... While finding time for services to other men he could produce so much out of his own study as though he had no part in the life beyond its walls..... He is the father of Bibliography."

Written in pencil by Osler

professor at Bologna where he resided for forty years, dying at the advanced age of eighty, when he willed his large collections of natural objects, including many unpublished manuscripts, to his native city.

Zoology.



Probably his treatises are an improvement on those of his

An important inovation in this remarkable work was the employment of illustrations, by the best artists of the day; indeed he draws attention to the fact that the picture of the rhinoceros was made by Albrecht Dürer. It is hardly necessary to say that the Historia animalium long continued to be ~~regarded~~ a storehouse from which succeeding writers "borrowed" many a helpful page.

So far as concerns quantity in the literature of sixteenth century ~~literary production~~ natural history at least one follower of Gesner surpassed that great writer. He is Ulisse Aldrovandi, who, born in 1552 of a Bolognese family, studied philosophy and medicine at Rome amd Padua. He was later made professor at Bologna where he resided for forty years, dying at the advanced age of eighty, when he willed his large collections of natural objects, including many unpublished manuscripts, to his native city.

~~al or periodical~~ in all the European languages essential to ~~study~~ research in the literature of vertebrate Zoology.

Probably his treatises are an improvement on those of his prototype Gesner although Buffon (who doubtless superseded him) declares that only about ten per cent of Aldrovandi's work is worth preserving. However, Nordenskiöld holds that his illustrations, typography and classification are improvements on Gesner's.

Guillaume Rondelet was born in 1507 at Montpellier, where he later taught anatomy in the University. He is best known by his work on sea fishes - De piscibus marinis - which included whales, seals, cephalopods, crustaceae and vermes. He was especially noted for his dissections of these animals which led him to contradict many of the assumptions of Aristotle.

Pierre Belon, born in Le Mans, was a medical naturalist who traveled widely, made large collections of animals - especially of fishes - and wrote at least two monographs on marine life. They are entitled La Nature et diversités des Poissons and

L'Histoire naturelle des étranges poissons marins, both of which include even a wider range of species than those described by Rondelet. However Belon regarded almost every mammalian swimmer as a "fish", among them the otter, the hippopotamus and the beaver.

During his Eastern travels he discovered several oriental types unknown to his contemporiels. It must be noted that his piscine classification approaches the modern, and includes a division of true fishes into bony and cartilaginous.

Belon did even better as an ornithologist. His Histoire des Oyseaux arranges the various groups according to their structure and habits; there is much evidence in his writings of a study of the morphology and histology of species, while comparative anatomy is illustrated in the pictured comparison of the skeleton of a man with that of a bird in his first book on avian life . In this last regard he was far ahead of his times.

Although Belon may be regarded as the first serious comparative anatomist, Leonardo (1452-1519) da Vinci helped along what is actually

Zootomia Democritea not in BM D Cat. hist

a modern study by his attention to anatomical details in art, just as Andreas Vesalius (1514-1564) created a new era in medicine and surgery by his careful attention to human dissection.

It is, however, to Fabricius ab Aquapendente (Girolomo Fabrizio) that we must look for the first wide application of Belon's attempt to place comparative anatomy, and, perhaps, comparative embryology, where they rightly belong. His work on the development of the fertilized ovum in a great many vertebrates (mammals, birds, reptiles, sharks) is but a part of these investigations, most of which are fully illustrated.

In many respects Marcus Aurelius Severinus (1580-1656) is a more important comparative anatomist than his predecessors. His Zootomia democritea is not merely a defence of comparative anatomy in the modern spirit but is a systematic treatise on the subject, with notes on his own zootomic experiences with birds, mammals, fishes and many invertebrates. He gives a full account of the dissecting instruments, lenses, etc. used in the histo-

essential to research in the literature of vertebrate Zoology.

logical art. The Compiler has ~~[illegible]~~ his Ornitholographia, a chapter of the Zootomia separately bound, ~~[illegible]~~ ~~[illegible]~~ actually ~~[illegible]~~ a comparative study of the feet, of birds.

essential to ~~[illegible]~~ research in the literature of avian Zoology.

Chapter ---

The Periodical Literature of [illegible] ology. Periodicals

As this chapter is often referred to as important it must not be forgotten.

On several pages ~~IIIIII~~ of this Introduction the Compiler has, in a general way, spoken of the extreme importance of journals, magazines, serials, etc., in a study of faunal literature. These form, indeed, the very foundation of our knowledge of the subject. ~~Most~~ Much of the output constitutes a record of the work done in laboratories, museums and other institutions, partly or wholly devoted to zoology; hence it is specially a contribution to systematic Zoology, and they furnish us with the most recent scientific news in ~~that department of~~ all departments of natural science. ~~and are the most trustworthy depositories for the preservation of observed facts.~~ The number of these periodicals has enormously increased in late years and it is difficult for even the best equipped library to keep pace with them and to preserve full sets of their many volumes. The McGill libraries have, however, striven to make their collections as complete as possible and it is now proposed to furnish a list (comparatively a small one) of the most important zoological periodicals out of the hundreds of those now on the tables and shelves of the McGill Libraries. It is, of course, impossible to mention the most ~~then~~ useful of them in this Introduction but the vast majority of the titles will appear in the appended Catalogue.

[illegible] serial or periodical ~~[illegible]~~ in all the European languages essential to ~~an study~~ research in the literature of vertebrate Zoology.

The Compiler once more directs particular attention to the excellent and much needed list and catalogue of periodicals on Zoology published in the Catalogue of the Zoological Society, the fifth and last edition having been issued in 1902. If that indispensable volume were brought up to date (1930), it would form a ready and extremely helpful source of information that now has to be culled, often with much labor, from such ponderous tomes as the Union List of Serials, whose very completeness as a record of all scientific periodicals makes it for our purposes difficult to manage. Even the Cat. of the Br. Museum (Nat. Hist.) has for the student of vertebrate Zoology the shortcomings of its many virtues in that the inclusion of every natural history title is a thorn in the flesh of the student of vertebrates alone. ¶ Much to the regret of the Compiler he is unable in this volume to furnish, in the excellent London Zoological Society's Catalogue, a complete roster of all periodicals and serials of the (vast) work that adequately supplements this excellent Catalogue is the Zoological Record, partially or entirely to vertebrate Zoology. ¶ However, it is not too much, he believes, to say that in the appended Catalogue will (or at least a short title) of nearly every be found a more or less evaluated list serial or periodical in all the European languages essential to research in the literature of vertebrate Zoology.

An Annotated Catalogue of Ornithological Periodicals Published during the Century 1823 - 1923

By Casey A. Wood.

Introduction

~~This compilation of a roster of ornithological periodicals issued since the days of Brehm's Ornis (1823) to the present time (1923) came about in this wise.~~ While engaged with Dr. Gerhard Lomer in collecting accessions to the Blacker Library of Zoology and the Emma Shearer Wood Library of Ornithology, McGill University (of which Dr. Lomer is librarian) it occurred to the writer of these notes that during a period when the subject was fresh in his memory and when most of the material was accessible in one or other of these collections, it might be possible to compile an annotated and illustrated catalogue of ornithological periodicals likely to be of assistance to workers in libraries, to naturalists, and to research students.

As regards the last named, it will be recognized that the more nearly a University library approaches completeness in its collection of periodicals on any subject the greater value it has for study and original work in that department of knowledge. Textbooks, monographs, systems - the ordinary items that fill the stack-rooms - are, after all, mostly compendia of matter pr

An Annotated Catalogue of Ornithological Periodicals

Published during the Century 1823 - 1923

By Casey A. Wood.

printed in journals, while the latest data on any subject is generally found on their pages.

Although the large majority of the titles in this catalogue is represented by complete sets in the McGill Library of Ornithology (indicated by an asterisk) some of them, Russian journals in particular, are not to be seen in any one library. For the privilege of examining these and other rare magazines the writer is indebted to many friends both in America and abroad.

The scheme generally followed in compiling this list is to give the title, subtitle, editor, publisher, place of publication, size of the magazine, total number of volumes, their years of issue, and such other data as seemed desirable of the first volume or number, thereafter noting essential changes in these items as the annotation proceeds. Cross references to altered titles and to prominent titular "catchwords" will also be found.

In determining the status of a "purely ornithological" periodical, it was decided (with some regret) to omit those journals that deal exclusively (or mostly) with poultry, domestic pigeons, canaries, and the sporting aspects of bird life. For this reason it was decided that such otherwise interesting journals as The Homing Pigeon (17 vols., 1905-1922), and Die Zeitschrift für Brieftaubenkunde, should be excluded. Poultry magazines and kindred by-products of scientific ornithology have an enormous periodical literature in many languages - particularly in English and German - scattered over the whole globe. The compiler has gathered a list of nearly

printed in journals, while the latest data on any subject is generally found on their pages.

Although the large majority of the titles in this catalogue is represented by complete sets in the Morrill Library of Ornithology (indicated by an asterisk) some of them, Russian journals in particular, are not to be seen in any one library. For the privilege of examining these and other rare magazines the writer is indebted to many friends both in America and abroad.

The scheme generally followed in compiling this list is to give the title, subtitle, editor, publisher, place of publication, size of the magazine, total number of volumes, their years of issue, and such other data as seemed desirable of the first volume or number, thereafter noting essential changes in these items as the annotation proceeds. Cross references to altered titles and to prematurely ended "subsidiaries" will also be found.

In determining the status of a "purely ornithological" periodical, it was decided (with some regret) to omit those journals that deal exclusively (or mostly) with POULTRY, domestic PIGEONS, CANARIES, and the sporting aspects of bird life. Here, however, it was decided that such otherwise interesting journals as The Hunting Dragon (17 vols., 1905-1922), and The Rattlesnake (An Illustrated Monthly, should be examined.

Poultry magazines and kindred by-products of ornithology have an enormous periodical literature in many languages [illegible] and German - scattered over the whole [illegible] has gathered a list of [illegible]

three hundred of these, and he has reason to believe that there are many more. Some of them are well illustrated and admirably conducted; and not infrequently they contain articles of decided merit, written by competent observers on subjects closely related to scientific ornithology. They occasionally discuss, for example, Mendelian problems, avian pathology and psychology, experimental aviculture, acclimatization, hybridism, etc.

It seems hardly necessary to refer to the fact that access to the voluminous periodical literature of general biology- which of course includes general zoology - is essential to a serious study of ornithology, and this truism might be put forward as a reason for including in this catalogue many a (general) zoological or biological journal containing contributions to avian knowledge of greater import to the ornithologist than many of the titles in this list. However, the space at the compiler's command has already been more than filled and he must refrain from wandering too far afield.

Of what might be termed "semi-avian" magazines, such as Eggs and Stamps, The Naturalist, (devoted entirely to Ornithology and Geology) The Weekly Oologist and Philatelist, as well as others of a more ambitious type, the compiler cannot take more than this passing notice, although some of them present papers of ornithological importance.

Of still greater importance to the serious student are many periodicals (like Professor Einar Lönnberg's Fauna och Flora) whose titles give no indication of the fact that they

are practically ornighological magazines, although apparently devoted to natural history in general. On the other hand, not all periodicals devoted exclusively to birds indicate their ornithological character in the title, and it has involved some searching to avoid the omission of some of these. As examples, one may mention Berajah; The Naturalist and Fancier; Walks and Talks with Nature; Die Thierwelt; The Year Book of the Amateur Menagerie Club; and there are several others of the same character whose table of contents is almost entirely composed of ornithological subjects.

There are many "separates" of ornithological and general zoological journals whose periodical status presents a difficulty These are Berichte, Annuals, Year Books, Annual Bulletins, Jahresberichte, Aarsberetning, Annuaires, etc., generally printed as integral parts of a parent magazine and usually paged as it is. It often happens that these excerpts are provided with a special cover, title-page, index, and sometimes, with a preface entirely distinct from the prefatory matter of the periodicals from which they were extracted. In this guise the reprint is placed on the market and advertized as a distinct publication. When, in addition to these devices, the excerpt is separately paged its claims to a place in such a compilation as this is much strengthened. The compiler feels, therefore, that in the following catalogue he may quite properly be criticized for accepting some of these abstracts and rejecting others of equal or greater value.

It may not be out of place to refer, briefly, to a few of these yearly reviews. One of them is Moske's Ornithologischer Jahresbericht über Pommern, printed in the Zeitschrift für

are practically ornithological magazines, although apparently devoted to natural history in General. On the other hand, not all periodicals devoted exclusively to birds indicate their ornithological character in the title, and it has involved some searching to avoid the omission of some of these. As examples, one may mention Bergtab; The Naturalist and Fancier; Walks and Talks with Nature; The Taxidermist; The Year Book of the Amateur Menagerie Club; and there are several others of the same character whose table of contents is almost entirely composed of ornithological subjects.

There are many "separates" of ornithological and general zoological journals whose periodical status presents a difficulty. These are Reprints, Annuals, Year Books, Annual Bulletins, Jahresberichte, Arbeberichte, Abhandlige, etc., generally printed as integral parts of a parent magazine and usually paged as it is. It often happens that these excerpts are provided with a special cover, title-page, index, and sometimes, with a preface entirely distinct from the prefatory matter of the periodicals from which they were extracted. In this guise the reprint is placed on the market and advertised as a distinct publication. When, in addition to these devices, the excerpt is separately paged its claims to a place in such a compilation as this is much strengthened. The compiler feels, therefore, that in the following catalogue he may quite properly be criticised for accepting some of these abstracts and rejecting others of equal or greater value.

It may not be out of place to remark, parenthetically, that a few of these yearly reviews. One of these, Morris's Ornithological Miscellany, [illegible]

Ornithologie. This periodical report appeared regularly for several years, and does not differ materially from similar contributions to journals that are quoted in booksellers' lists as bona fide periodicals.

In the case of annuals like the valuable Report on Scottish Ornithology (q.v.) of which three issues were printed as Separate Publications and the remainder wholly as contributions to the pages, first of the Annals of Scottish Natural History and subsequently of the Scottish Naturalist, notes on the whole series are here appended.

Attention may also be drawn to the Reports on the Movements and Occurrence of Birds in Scotland by L.W. Hinxman and T. G. Laidlaw, that ran for many years in the Annals of Scottish Natural History. The E.S.W. Library of Ornithology has a series of these - 1891-1899, inclusive - issued separately but bearing the pagination of the Journal in which they originally appeared.

A short but excellent example of an annual, or multiannual, periodical is the Ornithologischer Bericht über Mecklenburg, of which the tenth report, (1914-1920) much delayed by the Great War, was printed in the Archiv. d. Fr. d. Naturges. in Meckl., 74, 1920, p. 23.

Whatever their standing, annual reviews in the shape of bound "separates" form handy volumes for the research student and professional ornithologist even when complete sets of the parent journals are also accessible. For example, the ~~E.S.W.~~ E.S.W. Library has a 'run' (from the Reichenow-Cabanis collection) of the Bericht über die Leistungen in der Naturgeschichte

der Vögel, and Aves, edited by Hartlaub, von Pelzeln, Hx Hellmayr et al, covering the sixty-one years between 1846 and 1907. These reference volumes are reprints from the corresponding Jahrgänge of the Archiv für Naturgeschichte, and, in the shape indicated, save much time and labor otherwise expended in hunting references in the library copy of the general zoological periodical.

A minor but useful yearly review is the Koenig-Warthausen Ornithologischer Jahresbericht, one of the Jahreshefte des Vereins für väterliche Naturkunde in Württemburg, not separately paged, however.

For the student familiar with the Scandinavian languages, there are several periodical reviews of this kind. For instance, in the Library just mentioned is a set of early separates: Ansberättelser om Vetenskapernas framsteg, afgifne af Konigl. Vetenskaps-Academiens Embetsmän, Stockholm, 1822-1853. These admirable reports on bird life were contributed as follows: 1821-1828, J. W. Dalman; 1829-1831, S. Nilsson; 1832-1836, B.F. Fries; 1837-1850, C.J. Sundevall. Although this is not the place to attempt a complete account of such serials, it is even more difficult to place ornithological reviews that appear irregularly or that cover an uneven period of years. Such a publication is R. Collet's helpful Mindre Meddelelser vedrør Norges Fuglefauna i Aarene ----, issued in several sections as appendices of the Norse Nyt. Mag. f. Naturv. The first part comprises the years 1873-1876, the second 1877-1880 and the third the years 1881-1892. Such serials, issued in sections and separately paged, may, perhaps, be regarded as

ornithological periodicals, but it was decided to omit them from this catalogue.

Finally, for the English reader the best annual reviews of the regularly published sort is the ornithological section of the Zoological Record and the Ibis Index of Ornithological Literature (1870 and onwards) by Sabin and Sclater, which for many years have furnished an admirable account of the literature.

Just what to do with such (generally annual) periodicals as Bird Calendars, Taschenbücher, Kalender für Vogel-Freunde, Bird Years, etc., is not easy to decide, but in view of the generous supply of magazines proper it was decided to pass them by with this brief mention.

Although it seems at first blush trivial to speak of it, yet who shall say that a century hence the "airy nothings" in our ornithologic periodicals may not acquire a certain value - sociologic, perhaps - and afford a means of determining just what sort of people we are ? At any rate, the compiler records the issues of one of these comic publications, The Auklet. (7) The first number has as its minor title: Occasional Journal of Ornithological Minutiae. Illustrated. Vol. I, No. 1, 1920. Current. Anonymous. Privately printed. Washington, D.C., This amusing critique of men and things ornithological is well worth reading.

Although most of the periodicals, including the annuals and the irregularly published bulletins, edited by the American Audubon Societies have been listed in this catalogue (and many of them are genuine contributions to the progress of ornithology) yet the ~~writer~~ Compiler has been obliged to omit a few titles of this character because of his inability to obtain

ornithological periodicals, but it was decided to omit them from this catalogue.

Finally, for the English reader the best annual review of the regularly published sort is the ornithological section of the Zoological Record and the Index Index of Ornithological Literature (1870 and onwards) by Sabin and Holaber, which for many years have furnished an admirable account of the literature.

Just what to do with such (general annual) periodicals as Bird Calendars, Taschenbücher, Kalender für Vogel-Freunde, Bird Years, etc., is not easy to decide, but in view of the generous supply of magazines proper it was decided to pass them by with this brief mention.

Although it seems at first glance trivial to speak of it, yet who shall say that a century hence the "silly nothings" in our ornithologic periodicals may not acquire a certain value - sociologic, perhaps - and afford a means of determining just what sort of people we are ? At any rate, the compiler records the issue of one of these comic publications, The Auklet. Occasional Journal of Ornithological Minutiae. Illustrated. Vol. I, No. 1, 1920. Current. Anonymous. Privately printed. Washington, D.C.. This amusing criticism of man and things ornithological is well worth reading.

Although most of the periodicals, including the annuals and the irregularly published bulletins, edited by the American Audubon Societies have been listed in this catalogue (and many of them are genuine contributions to the progress of ornithology) yet the writer has been obliged to omit a few titles of this character because of his inability to obtain

the data necessary for annotation. In this connection it is ~~the~~ hoped ~~of the compiler~~ that, after a proper interval, a supplement to or a second edition of this catalogue will be written, perhaps by another hand, in which this and other defects may be remedied.

~~If it had been possible, the compiler would have~~ furnished a photographic reproduction of the title-page of the first number and its subsequent variants of all the magazines catalogued, as a desirable contribution to the subject in hand, but he was obliged to be content with a few reproductions ~~of the most important (or least accessible) of them.~~

The compiler returns thanks to all those who have given him assistance in the preparation of this manuscript, to the Librarian of Congress, of the British Museum - especially the Natural History Branch, South Kensington - and to the officials of the Tring, Bodleian, Cambridge General and Zoological Libraries. He is greatly indebted to Lord Rothschild, Drs. T.S. Palmer, Charles Richmond, Ernst Hartert, E. Lehn Schiöler, Jonathan Dwight Jr., and Harry Oberholser, and in no less degree to Messrs. W.L. Sclater, H. Kirke Swann, T. Iredale, W.J.H. Craddock, and Wheldon and Wesley, the Publishers and Booksellers. The last-named were of the greatest assistance in procuring rare continental journals. Finally his thanks are espedially due to Dr. Gerrard Lomer, Librarian of McGill University, for much assistance and helpful advice while preparing this catalogue.

(Periodicals ~~of a purely~~ ~~of Ornithology~~ on vertebrate zoology, including especially

Among the current) ~~ornithological publications~~ journals, those

with most frequent avian contributions are: Ibis (British); Aquila (Hungary); Auk (U.S.A.); Beiträge zur Fortpflanzungs-

biologie der Vögel (Germany); Berichte des Vereins Schlesischer

Ornithologen; British Birds (London); Condor (Pacific

Coast, U.S.A.); Australian Zoologist; Emu (Australasia); Flora och Fauna

(Scandinavia); Novitates Zoologicae (London and Tring); Gerfaut (Belgium); Irish Naturalists'

Journal; Scottish Naturalist; Zoological Record (entire literature of zoology);

Journal of the Bombay Natural History

Society; Stray Feathers (India); Journal für Ornithologie (Germany); Kócsag (Hungarian);

Protection of Bird Life; London Naturalist; Norsk

Bulletin Zoological Society of Egypt;

Ornithologisk Tidsskrift; Oiseau et Revue Française

d'Ornithologie (France); ~~Germany~~ Zoologische Garten; Zoologischer Anzeiger;

Ornithologische Monatsberichte (Germany);

Aresberetning (and Aarshefter) of the Tromso Museum, Norway;

Proceedings of the Academy of Natural Sciences of

Philadelphia; Journal of Mammology, Baltimore, 1919 - date;

Proceedings of the Zoological Society

London); Revista do Museu Paulista (~~So. America~~ Brasil);

Archivos and Revista do Museu Nacional, Rio de Janeiro;

South African Journal of Natural History; ~~South~~

Anales of the Museo Nacional de Historia Natural (Buenos Aires);

Australian Ornithologist; Uragus (Siberia); Wilson

Bulletin (U.S.A.). More of a popular order are the

Ornithologische Beobachter, (Germany);

Agricultural Magazine (Great Britain); Aviculture (U.S.A.)

Bird-Lore (U.S.A.); Bird-Notes and News (England);

the publications of the numerous Audubon Societies (U.S.A.)

East

t Africa and Uganda Nat. Hist. Soc. Bulletin, 1910–date ;

Among the many publications of local American natural history societies is the serial Pacific Coast Avifauna (1900 - date) dealing chiefly with bird life of that region and issued under the auspices of the very active Cooper Ornithological Club of California. (founded in 1893).

Partaking ~~partly~~ largely of what may better described as a Serial is that admirable periodical described in the appended Catalogue under the ponderous caption, United States. Dept. of Agriculture. Biological Survey Division. North American Fauna, 1889 + date. The separately-paged memoirs are (when treating of vertebrate Zoology) annotated under individual headings in the present Catalogue. The Biological Survey also issues a separately-paged Bulletin of great scientific interest and value, 1889 - date. // Attention has already been drawn to the importance of the periodical literature issued by the U.S National Museum - its Annual Report (1884 - date), Bulletin (1875 - date), Proceedings (1879 - date) and its Special Bulletin, 1892 + date.

Among the University institutions, very numerous in the United States, one may mention, as an example, the Illinois State Laboratory of Natural History, founded in 1862, whose Bulletin has been issued since 1876.

Another typical example of local American societies issuing praiseworthy periodical literature is the Wisconsin Natural History Society, founded in 1857 and issuing its Bericht at first in 1871; Proceedings-Bulletin and Proceedings since 1885 and Occasional Papers, 1859-90.

As already noticed, Italian scientific societies were among the earliest foundations, and among the first to issue their own periodicals and transactions. One of these, the Reale Instituto di Studi Superiori of Florence was organized in the 14th century although its natural history Pubblicazioni were not begun, as separate memoirs, until 1877.

On several occasions the Compiler has referred to the great value to the advanced student of the Zoological Record, now in its sixty-fifth volume, ably edited by W. L. Sclater. The sections that include vertebrates at least should be in accessible to everyone interested in that subject

The Annals and Magazine of Natural History (q.v.) with its many changes of title and editorial management since its first issue in 1837 in Edinburgh, is among the most important conservators of vertebrate faunal literature in any language.

many of the publications that have from time to time been issued by British natural history societies, museums, etc are listed in the appended Catalogue. As an example one may quote the Transactions and Proceedings of the New Zealand Institute, a composite association founded in 1867. This important periodical has been issued regularly since 1869.

Of British periodicals devoted entirely or partially to natural history the name is practically legion, and the Compiler could not if he would mention in this place more than a tithe of them. However, among the oldest of these general journals is the famous ~~noteworthy~~ London, Edinburgh and Dublin Magazine, first published in 1728 and with several changes of major and minor titles (as well as, of course, in the celebrities of editorial management) still continues ~~such in active work. Count~~ its useful activities. Consult both the Index and the Catalogue.

may be well to repeat, at this time, that the appended Catalogue has a fairly good list (and the McGill libraries a corresponding supply) of those numerous British and Colonial periodicals and serials whose titles begin with the adjective Royal; ~~that contain~~ many of them publish valuable articles on vertebrate Zoology. Of course the famous Royal Society of London (founded in 1660) is the forerunner of them all.

List of Vertebrate Periodicals.

Perhaps the Cat. of Periodicals localized in the Cat. Zool. Soc. might be used — to 1902. + the Zool Record afterwards. —

chain of Linnean societies it was early forged in all countries & naturalists favorable to such projects. Their publications are of outstanding importance among them of which, and perhaps the most important, are the Transactions, Journal etc of the Linnean Society of London founded in 1788; the Proceedings of the Linnean Society of New South Wales, 1877- date; the Bulletin and Notes (Transactions of the N.Y. Linnean Society; the Annales de la Soc. Linnéenne de Lyon, de Bordeaux) of the Société Linnéenne (founded 1818); de Bordeaux and a dozen others (founded in 1822) the first volume of which was published in 1826-36; of similar title in Europe. Many of these serials, more or less complete, are listed in this Catalogue.

A typical example of the numerous ~~local~~ British societies ~~and clubs devoted to the~~ founded for the study of local natural history is the Berwickshire Naturalists Club founded in 1831, and issuing regularly ~~publishing~~ its History and Proceedings since 1834. The well stocked libraries - especially the Blacker collection - have lots of the majority of these sectional periodicals many of whose titles, ~~to~~ necessarily excluded from this Introduction, will be found in the accompanying Catalogue. Of these the Hastings and St. Leonards Nat. Hist. Soc., founded in 1893, has issued ~~annual~~ annual reports on local flora and fauna since 1901. The Irish Naturalist, monthly organ of many local societies, has been steadily published since 1892. The Midland Naturalist, representing even more local organizations, was first issued in 1878.

Natural History Soc. of Glasgow, founded in 1851, has issued its Proceedings since 1868.

French speaking countries have been quite provident of periodicals largely devoted to natural history. In addition to those already mentioned one might add such publications as the Bulletin scientifique de la France et de la Belgique that, with its varying titles, has been published regularly since 1869. ¶

The numerous departmental and sectional periodicals the Bulletin of the Soc. des Sciences Naturelles de l'Ouest de la France (founded in 1891) has appeared since its foundation.

During the period of its publication, 1872-77, Gervais' Journal de Zoologie, Paris, its six volumes was a valuable periodical and still stands as a work of reference.

The many natural history publications by Museums in France those of the Musée d'Histoire de Marseilles, founded in 1819, is a good example, especially the Travaux du Laboratoire de Zoologie Marine, and the Annales, the latter issued continuously since 1883. Of course the numerous important periodical publications of the Paris Museum d'Histoire Naturelle quite overshadow other French serials, including the Bulletin, Memoires of the Société Zoologique de France. The Annales of the former first appeared in 1802, the Bulletin of the latter in 1876.

During its period of publication (1849-79) the Revue et Magasin de Zoologie pure et appliquée was a notable French periodical, as same can still be said of the Revue Suisse de Zoologie, whose first volume was published at Geneva in 1893.

Another local French society, the Société des Amis des Sciences Naturelles, founded in 1865, has continuously issued a creditable Bulletin since 1866.

The Iberian Peninsula furnishes quite a few periodicals in part or wholly given over to natural history. One of these is the Memorias published by the Madrid Real Academia de Ciencias exactas (founded in 1847); another the Boletin of the R. Sociedad Española de Historia Natural (founded in 1871), first issued in 1901.

Spain & Portugal

Several Italian natural history periodicals have already been mentioned; one of much importance that should not be passed over is the Atti della Società Italiana di Scienze Naturali issued from Milan since 1859.

Italy

¶ Taking them at random a few of the more prominent German periodicals in whose volumes will be found many valuable and original essays and articles on vertebrate zoology one may mention the Biologischer Centralblatt, founded by Prof. J. Rosenthal, Erlangen, 1881 – date. The Abhandlungen of the Dresden Naturwiss. Gesellschaft Isis have been published since 1860, the Society itself having been founded in 1833. ¶ An excellent example of the numerous array of local journals is the Jahresbericht of the Naturwiss. Verein von Elberfelde founded in 1846. More important are the several periodicals (Abhandlungen, Berichte, Katalogen etc) issued regularly by Senckenbergische Naturforschende Gesellschaft, a vigorous society founded in 1817. ¶ Of the German societies with mixed aims and objects perhaps the best known is the Gesellschaft deutscher Naturforscher u. Aerzte, founded in 1822 and issuing periodical literature with many important papers on vertebrate zoology since 1828. ¶ In 1823 was founded the popular Gorlitzer Naturforsch. Gesellschaft, since which date the society has regularly published its Abhandlungen etc. The Mittheilungen of the Greifswald Naturwiss. Verein (founded 1866) has been regularly issued since 1869. The Halle Verein (founded in 1848) is still more productive of zoological literature, issued under various titles regularly since 1853; in the same town was published Der Naturforscher, 1774–1804.

Still another active society is the Mecklenburg Verein der Freunde der Naturgeschichte (founded 1847) whose Archiv has been regularly published since its foundation in 1847.

The most important journal devoted to zoology is that issued, among many others, by the Deutsche Zoologische Gesellschaft since 1897 – Das Thierreich.

German periodical

Another important is Kosmos, devoted in particular to

vertebrate embryology. A complete set (1877-86)

9 vols. is in the Blacker Library.

portant) as well as the official Anzeiger, organ of the

te, Verhandlungen, Deutsch. Zoologischen Gellschaft have been

ssued since 1891 and 1890 respectively.

he organs of the numerous natural history societies - mostly in Central Germany -

name Naturforschender Verein are catalogued, as a rule,

under the names of the towns or provinces to which they

belong. Some of them are quite important.

here are few of the numerous general zoological German periodicals more

important and valuable to the advanced student than the Zeitschrift

f. wissenschaftliche Zoologie, founded by C. T. von Siebold in 1849

and since regularly continued.

veral Swiss serials and periodicals have already been mentioned. ~~In~~ In addition one should remember the Mémoires of the old Société de Physique et d'Histoire Naturelle of Geneva (founded in 1790) that have been issued regularly since 1821.

The Bulletin of the Société Vaudoise des Sciences Naturelles (founded in 1815) has also appeared promptly since 1842.

¶ Many of the periodicals containing articles and sections devoted to vertebrate zoology in its various branches have already been noted; indeed few of the general scientific journals whether published privately or by institutions or governments omit communications dealing with some ~~article~~ question in mammalogy, ichthyology or ornithology of that sort. One might, therefore, greatly prefer an Introduction like this with pages of ~~references~~ notes on ~~general~~ serials of that description. ~~How~~ ¶ At the risk of slighting ~~many prominent~~ many periodicals of prominence, the Compiler must make ~~his~~ a choice, ~~with~~ beginning with a mere mention of the publications of the N. Y. State Museum of Natural History, the first Report of which was made in 1848, followed by the founding of the Bulletin in 1887. ¶ In Europe ~~there~~ scientific societies ~~with~~ of their character as well as their numerous publications are much more prolific than in the New World and it is not possible to do more than mention a small fraction of them. A typical example is the Allgemeine Schweizerische Gesellschaft etc whose Verhandlungen were first issued in 1817 and have at several other publications been continued ever since.

Here, Below

Below

The American Academy of Arts & Sciences (founded in 1780) has continued its first volume of Memoirs since 1785, its Proceedings since 1848, ~~when it was first appeared in Boston~~ ~~had in the same~~ The Am. Assoc. for the Advancement of Science was born in Philadelphia in 1847 and the first volume of Proceedings was published the following year. The American Journal [Silliman's] has had an honorable career since its first issue in 1818. ¶ The American Naturalist, another

Among the ~~se~~ comparatively recent American (1902) foundations issuing various ~~serials~~ periodicals and serials, the Publications in particular — of great biologic importance is the Carnegie Institution, Washington, D.C, most of which ~~in the form~~ breath may be mentioned the still earlier Carnegie Institute of Pittsburgh (1895) ~~whose~~ many of whose Publications are devoted to Zoology.

Space does not permit of more than mention of a few of the ~~through~~ unlimited ~~the~~ ~~among~~ real North American periodicals devoted to Zoology, but as an example of these ~~mention should be made of~~ the valuable Proceedings of the Portland (Maine) Society of Natural History (founded in 1843) ~~and~~ has been continuously published since 1869.

Canada is well represented by natural history periodicals, listed in the Catalogue. ~~Of the~~ ~~many titles~~ is of which the Canadian Naturalist, first published as the organ of the Natural History Soc. of Montreal (founded 1827, now defunct) in 1857.

Another of similar name, Le Naturaliste Canadien, edited by the Abbé L. Provancher, 1869-91; afterwards by the Abbé V. A. Huard.

The Ottawa Field-Naturalists' Club, founded 1879, has published since that date its Transactions (1880-87), since continued as the Ottawa Naturalist.

Toronto University (founded in 1827) issues a valuable series of natural science periodicals, among them a Biological Series, first edited by Ramsay Wright, 1898 to date.

~~Laval University founded~~

of many South American periodicals on Natural history the Revista issued by the Museo de La Plata (founded in 1877) since 1890 (and the Anales since 1891) should not be passed over.

periodicals
~~Publications~~ of the

The Boston Society of Natural History — Journal, Memoirs, Proceedings etc — first appeared in 1837 and have since published many fundamental papers on vertebrate zoology. Sets of all these serials are on the shelves of the McGill libraries

Another notable American society that has its Journal regularly issued ~~since~~ since its ~~in~~ in 1870 ~~the~~ the Cincinnati Society of Natural History. ~~Its Journal~~

~~An~~ important though popular magazine is Forest and Stream, (N.Y.) in which since its first publication in 1874, have appeared many serious papers on vertebrate zoology.

~~Issued~~ Issued at first by the Montreal Nat. Hist. Society is the flourishing and useful Canadian Naturalist; its compeer across the St. Lawrence being the widely known American Naturalist.

An important organ of an equally important institution is the Bulletin of the Museum of Comparative Zoology, Harvard University, Cambridge, Mass., now in its 69th volume. A more recent source of vertebrate literature is the publications (various Series especially) of the Field Museum of Natural History, founded in 1893 at Chicago.

A valuable periodical for the research student is Whitman's Journal of Morphology, first published in 1887. Of even greater value is Gegenbaur's Morphologisches Jahrbuch, issued regularly since 1876 ~~and now~~

A corresponding German periodical is the Zeitschrift f. Morphologie und Anthropologie, 1891–1911.

In the Philippine Islands the Government Bureau of Science is the one source periodicals interesting to the zoologist. The Philippine Journal of Science, edited and first regularly issued by P. C. Freer in 1906 is now under the care of R. C. McGregor and is a periodical of great scientific value.

(as well as the Reports)

of African journals the ~~Publications~~ Annals of the Pretoria Museum and Zoological
Gardens (founded in 1892) issued since 1908 deserve mention. Another
is the Revue Zoologique Africaine, Bruxelles, 1911 to date.

The American Naturalist another magazine, having vertebrate Zoological interests, began its existence in 1868 and has appeared regularly since that date

Of the Dutch journals the periodicals of the Amsterdam Koninklijk Zoölogisch Genootschap (1838) and of the Kon. Akademie van Wetenschappen (1851) are very important. They are noted in the appended Catalogue.

Containing many terms and important papers on Comparative Zoology is the Anatomischer Anzeiger, Jena, 1886 to date.

The Proceedings of that very important section, Zoologie, of the well-known Annales des Sciences Naturelles, Paris, was first published in 1834, & be regularly issued since that date.

Another French journal of importance was first issued in 1897, the Année biologique. The Association française pour l'avancement des Sciences was not founded until 1872, since which date its Comptes-Rendus have been regularly issued.

A well conducted local magazine is the Annals of Scottish Natural History first appearing in 1892.

In 1882 was founded the Australasian Association for the Advancement of Science whose (Annual) Reports have appeared regularly since that date.

North European countries Finland contributes several excellent periodicals the chief of which is, perhaps, the Acta Societatis pro Fauna et Flora Fennica, (Helsingfors,) ~~The Society has issued~~ regularly issued since 1875.

Of Russian periodical literature among the most important is the output of the Société Impériale des Naturalists, (Moscow, founded) in 1805 which, with several vicissitudes of name & dates of publication has been issuing Mémoires, Bulletins etc ever since 1809.

Of the periodicals ~~interesting~~ of importance to students of Far Eastern Zoology none is of greater value than the Journal of the Bombay Natural History Society, issued regularly since 1886, and the publications of the various Royal Asiatic Societies ~~London whose abundant outputs~~ mostly branches of the parent London Society.

UNICA

J

Several Australasian periodicals devoted to ~~Natural~~ natural history and many more are ~~absorbed~~ on the roster of the Catalogue have already been mentioned; An important example is the Journal and Magazine of the Field Naturalists' Club of Victoria (founded in 1880) issued since 1884, while the Emu, organ of the Royal Australasian Ornithologists' Union, has been regularly issued for many years. Mention has elsewhere been made of the valuable publications of the Australian Museum, Sydney, founded in 1836, whose Memoirs (1887 - date) and Records (1890 - date) furnish instructive lessons in vertebrate zoology.

Ask Dr. Wood for other typed material on periodicals.

11.6.30.

Only the typed material is legible.

the more or less intimately with the thoughts, motives and daily lives of the makers of that history. By purchase and gift the Blacker ~~&~~ E. S. W. Libraries have in the course of ten years or more collected over 25.000 letters and MSS. (unpublished ~~autograph~~ written by) nearly every eminent writer on zoological subjects from the seventeenth ~~century~~ to the ~~nineteenth~~ twentieth centuries. ~~Among those in the~~ Chief among these are the Woodward (British Museum) Bowdler Sharpe, Elliott Coues, Sherborn, Ridgway, Brewer, McGregor, ~~Dresser~~ and Casey Wood collections. ~~The~~ This assemblage of autographs material, alphabetically arranged and stored in fireproof containers, are, of course, accessible only to responsible students of zoology and advanced.

Much of it cannot be published now but most of it has direct and important bearing on the history of zoology. Moreover the Compiler believes that the future historian of natural science and its builders will find a mine of information in these personal records. less

Chapter XVI

Unica

Not completed
Some chapters
(typed in
Rome) not
retyped.

UNICA

Bring [illegible] umbrella

Look up Shore. ~~re trimmer~~ in Cat list

Be sure to go thro' all the Original Drawings for Urnèa – such as Shore etc

QUEEN ANNE'S MANSIONS,
ST JAMES'S PARK,
LONDON, S.W. 1.

% QUANSIONS, PARL, LONDON
№ 5510 VICTORIA.
CODE: A.B.C. 5TH & 6TH EDITIONS.

Original drawings - ~~reproductions of which for purposes of~~ (mostly ~~employed for~~ recording) to illustrate in zoological works - by artists more or less famous in the annals of natural history are fairly well represented in the McGill libraries. Unfortunately the collection as it ~~they are~~ weak in the works of American artists; illustrators ~~and~~ lacks examples of Audubon, for instance, but Compiler hopes to remedy that defect in the near future. A few of the more important acquisitions in this line, taken at random, with new ~~drawings may~~ be mentioned. At the instance of Dr. Alex. Wetmore the Blacker Library acquired recently four folio volumes of unpublished ~~water~~ aquarelles, with MS. descriptions and index, by Descourtilz Rabié, of the Historie Naturelle de St. Domingo. These important ~~examples~~ americana were painted from ~~paints~~ life by a French artist in the west Indies between 1797 and 1784 and consist of colored drawings of 59 birds, 75 fishes, reptiles and crustaceae, as well as 127 sheets depicting several hundred other natural history objects found in ~~the number of~~ an important west Indian island. Dr. Wetmore ~~the Caribbean Islands~~. ~~he makes~~ has promises to make the avian portion of this collection the basis of a paper on the subject.

¶ The Blacker Library has many original drawings by the well-known eighteenth-century artist-author, Wm. Lewin. Among them is a portfolio of water colors (made in 1785) of British birds eggs

LEWIN, Wm.

~~1785~~ British Birds' Eggs, painted from the Portland Museum, being 90 original ~~Water-Colour~~ Drawings, depicting 146 eggs, on thick cartridge paper, with title, descriptions, and index in his handwriting, 4to. (probably unique). The figures correspond mainly with those in his British Birds, but seem to have been executed with greater care, and were doubtless painted before 1786, as the contents of the Portland Museum were sold in April of that year.

e account (being typed) of Dodo frontispiece.

Lady Gurlin – Keulemans –
Dodo collection – Gm. Henry – (Ceylon) Wolf –
Lewin collection – Belcher – (Fiji –)

279

¶ Among modern natural history artist-illustrators none is better known than Hendrik Grönvold with an office in the British Museum. He it was who painted the life-size portrait of the parrot, John IIIrd, now decorating the walls of the E.S.W. Library. All the drawings, plain and colored, illustrating Kirke Swann's monograph or descriptives (completed after the death of the original author by Alex. Wetmore) are in the Blacker Library with many more in the best style of this artist. One of the larger colored drawings is a ~~large~~ ~~signed drawing~~ portrait, ×, of the beautiful hawk ?

Among Colored drawings to illustrate published works one of the best examples are the originals in the Blacker Library of ~~the originals of~~ Philip Henry Gosse's Illustrations of the Birds of Jamaica, 52 colored plates, 4to, London, 1849.

Because of its interesting provenance Stokes has the library copy of John Walcott's "Figures" (1788-9) is worthy of a brief ~~note~~ note. It has Two Original Drawings by the Author, of the 'Kite-fish' and the 'Six-lined Lizard' inserted, ~~in 4to., half calf, gilt~~ with the Author's Bookplate and inscription of a former owner. on title 'Presented to me by his son W. Walcott, 1817',

Another interesting item is Johannes Gundlach's Drawing Book of 65 outlines (with legends in Spanish and English) of birds and other animals, one of which was made on letter paper addressed to his old home in Cardenas, Cuba in Oct., 1852.

among the many interests in life possessed by ~~that~~ the ~~remarkable~~ celebrated

Samuel Pepys ~~literary character~~, was his library. He speak in

his famous diary he several times mentions this collection of books,

~~bound~~ nearly bound in uniform calf, covers stamped with the Pepys

arms and further decorated with his bookplate. She was fond of

arranging and ~~arranging the thousand volumes~~ indexing his wonderful library treasures and of reading

her favorite volumes. ~~At~~ At this He left this library with its ~~and~~ bookcases

manuscripts, diaries

and other appurtenances to Magdelen College, Cambridge and there, in

a building set apart for the purpose

~~the Bibliotheca Pepysiana~~ it is displayed for all the world to

see. It Now it happened that John Ray, ~~then was~~ president of the

Royal Society, ~~wishing to~~ of which Pepys was a member, wishing to

~~the present~~ give the diarist a worthy book for ~~with an addition to~~ his library presented

him with a copy of the well known Ray-Willughby Birds. It was

the English edition, beautifully bound in leather (Ray had it

and, in addition, ~~in addition~~, lubricated)

transported ~~and Ray had~~, the black-and-white plates of

the inscription with the autograph of the presentation:

the original were carefully colored. It The recipient had his

coat-of-arms stamped on the covers and, of course, added

his book plate. It was a fine accession ~~to his arranged~~ to the Pepys collection

It On the death of the diarist his executors

very properly decided to present ~~the~~ a few duplicates ~~in Pepys'~~ library

~~library~~ to relatives. They found two ~~copy~~ examples of Willughby's Birds -

one the usual plain ~~the copy~~ copy and the other the Ray

presentation. By some unexplained ~~mistake~~ error the latter was

handed over to a Mr. Jackson - Pepys' relative - ~~and~~ the

other retained in the library. ~~In the course of time~~ after ~~a hundred~~ the lapse of a couple of

centuries this historic volume came on the market and was

purchased for the Blacker Library and is now one of its chief treasures.

Of volumes with provenances lies in marginal manuscript notes whose chief interest to readers of natural history literature the McGill libraries have quite a collection. For example, The U.S.D. library has an autographed and bound copy, dated 1872, from Prof. Alfred Newton of Cambridge to Dr. Elliott Coues of the former's "Extracts from from the Record of Zoological Literature, Vols. I–VI, containing the portions relating to Aves from 1864 to 1869, with the compiler's kind regards". This compilation proved of great help to Coues in assembling certain data for his famous Bibliography of Faunal Titles of North American Ornithology, and the copy in question is full of marginal notes and bracketed paragraphs indicating the transference of numerous references whose verbiage one may easily recognize in the pages of Coues' Instalments.

Of volumes that are merely rarissima and whose possession is due more to persistent search than to the expenditure of dollars the McGill libraries have their usual share. The ~~annotations~~ evaluations in the appended Catalogue generally note unusual or scarce items but a few of the more noteworthy items may be mentioned at this time. The original edition of William Turner's Avium praecipuarum --- apud Plinium et Aristotelem etc., a small octavo printed in 1544, at Cologne and translated (1903) with notes by A.H. Evans is among the treasures of the Blacker Library. Harvard. A copy is marked "wanting" in the Cat. Br. Mus., 1915, and it is undoubtedly a very rare little Arbuckle classic.

. In the E.S.W. Library is the following title:

unica
✓ corrected

Vieillot, L.P.
1816. Analyse d'une nouvelle Ornithologie élémentaire.
8vo. pp. 70 + 1. Paris.

¶ This is the rare editio princeps of a small but extremely important volume reprinted by the Willughby Society. The present copy bears the signature of A. Milne-Edwards and was auctioned off at the sale of his library. There is a very neatly hand-printed list of "errata" at the end, which in the opinion of Dr. Chas. W. Richmond (through whom the E.S.W.Library was able to acquire the item, and to whom the Compiler is indebted for the following notes, is taken from the Nouv. Dict. d'Hist. Nat. (?Vol. XXIV) or from some other of the author's writings of 1817 or 1818. There are about 120 new genera proposed in the present work as well as 16 new species. See Mathews Birds of Australia, Supplt. No. 5. The author tried to publish this work for two or three years before it finally came out. In spite of Vieillot's industry and activity, not to mention originality, some people tried to give him a black eye, and Temminck even published a pamphlet "Observations sur la classification methodique des Oiseaux, et remarques sur l'analyse d'une nouvelle Ornithologie élémentaire par L.P.Vieillot", dated 1817 (See Mathews, p.135), in which he roasts Vieillot, if I remember correctly, but I cannot find the tract at this time. I think he also claims that the"Analyse" appeared late in the year, though we have established its date as April, about the 14th."

Vieillot, L.P.

1816. Analyse d'une nouvelle Ornithologie elementaire. 8vo. pp. 70 + 1. Paris.

This is the rare editio princeps of a small but extremely important volume reprinted by the Willughby Society. The present copy bears the signature of A. Milne-Edwards and was auctioned off at the sale of his library. There is a very neatly hand-printed list of "errata" at the end, which in the opinion of Dr. Chas. W. Richmond (through whom the E.S.W.Library was able to acquire the item, and to whom the Compiler is indebted for the following notes, is taken from the Nouv. Dict. d'Hist. Nat. (?Vol. XXIV) or from some other of the author's writings of 1817 or 1818. There are about 120 new genera proposed in the present work as well as 16 new species. See Mathews Birds of Australia, Supplt. No. 5. The author tried to publish this work for two or three years before it finally came out. In spite of Vieillot's industry and activity, not to mention originality, some people tried to give him a black eye, and Temminck even published a pamphlet "Observations sur la classification methodique des Oiseaux, et remarques sur l'analyse d'une nouvelle Ornithologie elementaire par L.P.Vieillot", dated 1817 (See Mathews, p.135), in which he roasts Vieillot, if I remember correctly, but I cannot find the tract at this time. I think he also claims that the"Analyse" appeared late in the year, though we have established its date as April, about the 14th."

As is the case in all large ~~libraries~~ libraries of the New World the McGill collections are ill-supplied with manuscripts and especially defective in codices written before the invention of printing. The Compiler may therefore be excused if he ~~describes~~ Quotes at Some length descriptions of three Persian treatises on Zoology, ~~of the~~ one ~~at some length~~ early of and perhaps two of which were copied before 1450 A.D.

(The ~~above~~ introductory notes on these extremely rare treatises were furnished by Colonel H. Murray of Simla, India, in whose possession the ~~volume~~ three manuscripts were was at one time, and by Professor Syed Azhar Ali, M.A., a well-known authority on oriental MSS. The latter believes the three works, with their rare illustrations, constitute a "rare treasure" that should never have left India.) The remainder of the annotations is (extracts) from the ~~published~~ much longer & ~~10 December 1926~~. ~~Sgd) Casey A. Wood.~~ Stanford University.

the very rare Farah-nama-i-Jamali) (in the Journal of the Royal Asiatic Society during 1929)
detailed description of ~~the MSS.~~ (Published ~~in the year~~ by W. Ivanow of the Asiatic Society of Bengal author of many works on oriental literature and former Curator of Persian Manuscripts in the Imperial Library in St. Petersburg.

THREE PERSIAN MANUSCRIPTS OF THE 15th. and 16th. CENTURIES.

286

Three quite unique Persian Mas., all dealing with Natural Science, are bound together in this one (original) cover.

The first manuscript is entitled NUZHAT-NAMA-I-ELIA, or "ALLA'S BOOK OF HAPPINESS," the name of the Patron to whose order the Original MS. was written being Alla-ud-Daula.

There are only three known complete copies of this work, one in the Bodleian Library at Oxford, one in the Ducal Library at Gotha and the present copy.

The present MSS. are elaborately illustrated with hundreds of colored drawings in the best style of the fifteenth century, a circumstances that greatly enhances the scientific, artistic, literary and, one may add, the commercial value of the collection.

Illustrated manuscripts of Arabic and Persian works dealing with Natural History with drawings by the best artists of that period are of the greatest rarity.

Without doubt it was the intention of the Naturalist who wrote the third section of this collection, and who is

responsible for the whole, to bring together all that was known in his day of Natural History. To that end he adopted, first of all, the correct plan of reproducing in toto what he regarded as (and what probably was) the most authentic work on the general subject. With this he incorporated a few additional original pages by a second author and, finally, he supplemented these works, one original and the other more extensive but published monograph, by his own contributions taken from various sources, but contriving as far as possible not to duplicate the observations of the other writers.

The colophon records that the copying of the first work - the NUZHAT-NAMA- was completed on Sunday, the 9th. of Rabin - awwal, Anno Hegirae 807, i.e. about 1427, A.D., and that the copyist was Ali son of Mahmud, son of Mahammud Suruamed Sayingh, of Shiraz.

The masnuscript opens on the first page (reckoning from the back of the book, as usual in Persian script) with directions for preparing certain medicines. There is also a quatrain of Persian poetry, continued on pages 2 and 3. The third page shows the seal of Mahabat Khan, Commander-in-

Chief in the reign of Emperor Jahingir, and records the fact that the book formed part of the library of the former's son, Aman-ullah Khanazad-Khan-Feroz Jung.

Elsewhere it is recorded that the original of the Nuzhat-Nama was written in Gurgan and Astarabad during a period of non-employment and adversity by Shah Mardan, son of Abil Khair, when he excerpted and translated from other Arabic works such facts and observations as he considered worthy to be presented to the public. He made a number of separate books in this way, one of which he called Badir. This one he revised and enlarged to form the Nuzhat-Nama.

The NUZHAT NAMA is divided into <u>two sections</u>, the first one into six chapters - on anatomy, 'temperaments', animals (mammals), birds, reptiles, insects, tress, minerals, etc.

The <u>second section</u> of the Nuzhat Nama deals with astronomy, astrology and similar subjects, being sub-divided into six discourses, as follows :- (1) The Four Elements, (2) Fortune and Misfortune attendant upon Certain Numbers; (3) Physiognomy, (4) Dreams and their Interpretations, (5) The Celestial Bodies, (6) Alchemy, Magic, etc.

The original MS. of the Nuzhat was written in the fourteenth century A.D., after the Dilamites had thrown off the yoke of the Bagdad Caliphate.

The small, second work in the collection is a separate treatise of 10 pages written by Ibrahim, son of Abdul Jabbar. It deals mostly with botanical subjects, and is probably an original treatise. At least no name is entered as copyist, and it is without date.

The third work in this bound volume is entitled FARUPH-NAMA-I-JAMALI. It was written in A.H. 899 (about 1519, A.D.) by Abu Bakr, son of Muzhar, son of Muhammed, son of Abul Casim, son of Abi-Said-il-Jamal, known as Yazdi (citizen of Yazd).

The author states that while it is largely a compilation of natural science, none of the contents of the Nuzhat Nama have been repeated. The compend appears in two parts, each subdivided into chapters.

Chapter 1 of the first section deals with anatomy; Chapter 11 with mammals; Chapter 111 with birds; Chapter 1V with reptiles; Chapter V with the vegetable kingdom, and agriculture.

Chapter 1 of the second section deals with the four seaons and their relation to the sky, space and time; Chapter 11 treats of arithmetic, astrology, logic, accounts, and the decisions and judgments of Ali, the Fourth Caliph and son-in-law of the Prophet.

Like the second treatise, this work is certainly an original manuscript. There is no mention of a copyist, but it was evidently written to supplement and bring up to date the information supplied by the other two monographs. Also, no date is given of any copy.

---

in his report on the Farah-Nama-i-Jamali

291

P. Ivanow, notes that only until recently "only one

292

MISCELLANEOUS COMMUNICATIONS.

FARAḤ-NĀMA-I-JAMĀLĪ

Only one copy of the *Faraḥ* (or *Farrukh*) *nāma-i-Jamā* was so far known (in Or. 30) in the library of the British Museum. It is slightly incomplete at the end, as described by C. Rieu, in his Catalogue of the Persian Manuscripts, vol. ii, pp. 465–6.[1] Not long ago, Dr. Casey A. Wood, the well-known ornithologist, a professor of Stanford University, while on a tour in Kashmir, especially, acquired another copy of this rare work, bound in one volume with the *Nuzhat-nāma-i-'Alā'ī*, and a fragment of another work in the same style. This copy contains numerous illustrations, and is almost complete, except for one short lacuna. It is dated the 4th Muḥarram, A.H. 899, *i.e.* the 15th October, 1493.

This transcript not only contains the last two chapters, missing in the British Museum copy, but also gives very interesting variants of the latter, in the passages relating to the date and the place of its composition.

Although Rieu in his Catalogue preferred to read the title of the work as *Faraḥ-nāma*, following the statement of Ḥājjī Khalīfa (No. 9011), both copies give it in the form of *Farrukh-nāma*. The work was intended by its author to be a supplement to the famous *Nuzhat-nāma-i-'Alā'ī*, by Shāhmardān b. Abī'l-khayr,[2] who dedicated it to

[1] A Vienna MS. (No. 1449 in Flügel's Catalogue) contains some extracts from this work.

[2] The oldest and the only complete copy of this work (dated 703–1304) belongs to the Bodleian library (H. Ethé's Catalogue, No. 1480); the Gotha copy (W. Pertsch's Catalogue, No. 10) dates from about the beginning of the fifteenth century. It is a good, well-preserved, and clearly written MS., with archaic orthography. Dr. Casey Wood's MS. (now in McGill University library, Montreal) is dated Rab. I 807, Sept., 1404, ends at the fourth *maqāla* of the second *qism*, and is illustrated. The copy of the Asiatic Society of Bengal, Calcutta (see my Catalogue of the old *Persian* collection, 1924, No. 1358), dates from the end of the seventeenth century, and contains only extracts and summaries of different portions of the work. The Vienna copy mentioned in Flügel's Catalogue, No. 1449, contains only a short extract.

Of volumes with provenance of interest to naturalists and collectors the libraries have their share. The first one that occurs to the Compiler is an autograph letter, dated Sept. 30, 1861, from Dr. Jerdon to Edward Blyth regarding the latter's work on Indian Zoology. It is found in Blyth's Catalogue of the Birds in the Museum of the Asiatic Society, 1849.

Other unique provenances are the manuscript additions by the rare Miss to the A. S. W. Library copy of Vieillot's Analyse, 1816, from the Milne-Edwards library.

Perhaps minor importance but still interesting are such volumes as the seventh edition of Carpenter's Microscope, 1861-5 which the [illegible] presentation copy of [illegible] has used as a scrap book for appropriate [illegible] newspaper clippings.

[illegible] Guillin's paper now being copied [illegible]

One of the most important collections of original paintings in the McGill Libraries is that by a comparatively unknown artist, Lady Elizabeth Gwillim (1763-1837). The compiler has already told the story of this interesting "find" in The Ibis, July, 1953 and the following extracts repeat the tale of a search in the cellar of a London dealer and the discovery there of a "parcel containing about thirty small (10 x 14 in.) mounted and coloured drawings of Indian Flowers. Each met here an auctioneer's (or dealer's) printed number; a few were signed "E.G." and upon still more were written legends (that Sir Henry Yule-Hyndman later translated for me as Urdu) of the native names of the subjects portrayed. With the contents of this package I was shown a portfolio containing paintings in colour of a few Indian flowers, inscribed with both their English and systematic names. Pasted on one of the front parts of this portfolio was a leaf on which was written "Elizabeth Gwillim, Madras, 1800-1806." While I was examining these drawings and waiting for more, a salesman happened along and said to the proprietor, "I think that before I went to France in 1914 I saw a collection of bird paintings down stairs." Shortly afterwards this clerk appeared bearing an immense, duo-imperial, but extremely well made portfolio about five feet broad and four high. I noticed that it was brass-bound, provided with a safety lock and a wide wooden back. It must have weighed thirty or forty pounds. On it were

painted barely decipherable initials and a date-"E.C.K. 1800" The contents amazed and delighted me. I do not claim to be an art expert, but I realized at once that the paintings of Indian birds in the pockets of the giant container were by the hand of no mean draughtsman.

We are all well acquainted with the productions of brush and pencil wielded by "ladies of quality" during the Georgian and early Victorian periods, and I fully expected to find these amateurish efforts displayed in the bird drawings, despite the rather favourable impression made on me by the fishes and flowers. But I was agreeably mistaken; not only were the birds--so far as I then knew them--faithfully depicted as to plumage and posture, but the backgrounds were painted in a fashion worthy of Keulemans or Grönvold. They were in water colour, carefully finished and on fine paper. Some of them were mounted, and all were numbered in the handwriting of the artist. Many bore (on the backs mostly) descriptive notes--measurements, colour-indications, and other data. Generally the systematic title, sometimes only the English or vernacular name, was appended. On some pictures there was no legend; on others only the genus was given. In addition to the completed drawings there was a small collection of unfinished sketches evidently the usual "studies" of the artist.

Some of the paintings bore faint, but elaborate, pencilled descriptions of the bird-subject, references to its habitat, life-history, nesting-habits, oology, food,

sexual differences, etc., showing that the artist was, for her day and generation, a well-informed zoologist.

In every instance an appropriate background--Indian landscape, trees, shrubs, on which the particular bird was accustomed to roost, flowers, fruit or animal food on which it fed--was provided.

In addition to notations by the hand of the artist herself the reverse of each portrait showed, as in the case of the drawings of the Indian fishes, a trade number, as if the collection had been prepared for public sale or auction.

After I had acquired this rather remarkable "find", I naturally tried to trace the paintings to their original source, but in vain. All the dealers could tell me was that they were purchased by them "at a sale in the country" many years before, but exactly when and where they could not remember, and were unable to discover, as no record of the sale had been preserved. From time to time the portfolio had been resurrected and an occasional picture sold, mostly for framing but sometimes for decorating fire- and other screens! It was impossible to say who bought these odd lots.

I carefully cleaned the Gwillim pictures of their century of dust and other accumulations, and was much pleased to find that, chiefly owing to the fine quality of the drawing paper, there was very little ("foxing" visible, and that the well-constructed portfolio had further preserved them. The colours (including the iridescence of certain plumage) were barely altered;

brillaut hackle, matle, wring and tail seem as freshly depicted as when they were painted more than a hundred years ago.

In all there were 121 drawings, and as the highest of Lady Gwillim's numbers was 201 (coresponding to 180 of the supposed dealer) it may be assumed that she had at one time and another painted at least the former number of bird-portraits, which before they fell into the hands of the former dealer had probably been reduced by sale or otherwise to 180.

The 121 pictures givenone a fair idea of the avifauna--indigenous and migrant--of southern India. Comparing them with Jerdon's list and with the fuller catalogues of Blandford and Oates, there are, of course, many gaps--many genera not represented at all; but, considering the circumstances, one can easily believe that if the artist had lived a few years longer she would have made a gallery of Indian bird-pictures of the greatest scientific value, worthy to rank with the major collections of the world. Her sudden and early death, however, prevented the completion of the task, and probably consigned many of her best efforts to oblivion.

The importance of the collection may warrant a few remarks about the individual pictures, as well as about the artist herself.

In the first place, almost all the drawings are life-size. If one reflects for a moment that Indian birds include many of the largest of the Old World avifauna, the reason for the immense portfolio I have described in manifest. For example

drilliae Hoopie, Hoopie, wring and tail seem as freshly depicted as when they were painted more than a hundred years ago.

In all there were 121 drawings, and as the highest of Lady Gwillim's numbers was 301 (corresponding to 180 of the supposed dealer) it may be assumed that she had at one time and another painted at least the former number of bird-portraits, which before they fell into the hands of the former dealer had probably been reduced by sale or otherwise to 180.

The 121 pictures give one a fair idea of the avifauna--indigenous and migrant--of southern India. Comparing them with Jerdon's list and with the fuller catalogues of Blanford and Oates, there are, of course, many gaps--many genera not represented at all; but, considering the circumstances, one can easily believe that if the artist had lived a few years longer she would have made a gallery of Indian bird-pictures of the greatest scientific value, worthy to rank with the major collections of the world. Her sudden and early death, however, prevented the completion of the task, and probably consigned many of her best efforts to oblivion.

The importance of the collection may warrant a few remarks about the individual pictures, as well as about the artist herself.

In the first place, almost all the drawings are life-size. If one refleets for a moment that Indian birds include many of the largest of the Old World avifauna, the reason for the immense portfolio I have described in manifest. For example

the painting of Ardea cinerea measures, exclusive of the mount, 33⅜ in. x 24 in.; of Dissura episcopus, 25½ in. x 24 in.; Herodias alba, 26¼ in. x 2o in.; Ardea manillensis, 26¼ in. x 1 19⅞ in.; Botaurus stellaris, 30 in. x 24½ in; Pseudotantalus leucocephalus, 25 in. x 21¼ in.; Gallus sonnerati, 33½ in.

The Accipitres are well represented and proportionately figured; even the largest Vultures are painted life-size.

It has been the proud belief of Americans--myself included that it was our Audubon who first produced full-length portraits of the largest birds, and certainly the pictures of the male and female Wild Turkey, of Washington's Eagle etc., and their exact reporduction in the elephant folio bear out that claim. However, so far as originals are concerned, we must now concede the palm to Lady Gwillim, who so far as I know, is the fist artist-ornithologist to paint full-sized and exact pictures of any considerable number of birds whose length exceeds, say 35 inches.

I asked a number of trained ornithologist to examine and give me their opinion of the scientific and artistic value of the collections, among them Mr. Stuart Baker and Mr. Kirke Swann. The latter carefully revised the systematic names of the Birds of Prey, and expressed his complete satisfaction with the manner in which they had been depicted by the artist. Mr. W. L. Sclater also kindly looked over the portfolio and agreed that its contents sould be of distinct value to students and would form a desirable addition to a research library. He pointed out

that in the evident faithful delineation of Living subjects the pictures formed a striking contrast to those common but really valueless drawings supplied by native artists of Indian birds. Moreover, they were likely to be free of those errors (discoloured and faded wattles, legs, ceres, mandibles, etc.) sometimes made by even our best artists who were obliged to make their drawings from bird-skins in which decided colour-changes had occurred after death. Lady Gwillim, having been in a position to command live birds or recently killed specimens, had been able to avoid such mistakes.

Having sttled the status of her pictures, it remained to find out something about the artist. I have consulted all the ordinary and most of the extraordinary sources of information that would occur to one interested in the matter, but with meagre results. Many authorities--among them Sir Henry Drake-Brockman (I.C.S), Sir William Foster of the India Office, Canon Bannister, the well-known genealogist of Hereford, whence Lady Gwillim's husband came to Madras, the Librarian of the Inner Temple, and several others, who seemed likely to furnish some account of her life and career as the wife of a distinquished Indian judge--very kindly assisted me in this quest. In addition, I have carefully searched all the biographies, both British and Indian, at my command and have diligently explored, while in that city, all the Madras public libraries, including the files of the Madras Government Gazette and records in the Connemara Library at Madras. Through the courtesy of the Garrison Chaplain, The Rev. C. E. De la Bere, I was permitted

to examined the Parish registers of St. Mary's Church and to copy the inscription on Lady Gwillim's tomb. I regret to say that the information thus acquired is small in amount and of disappointing character. The Government Gazette, the only newspaper published in the Presidency at the time, gives only the usual formal notice of the lady's death, omitting her maiden name and birth-place. As Sir W. Foster remarks, obituaries of women of title were not fashionable at the beginning of the nineteenth century.

Briefly, all vital data I have been able to secure up to the present time is as follows:--Elizabeth Gwillim (maiden name unknown) was born (about) April 21, 1763, and came to Madras in the year 1800 with her husband, Sir Henry Gwillim (just made K.C.M.G.) of Hereford, one of His Majesty's Puisne Justices of the newly-formed Supreme Court of Judicature. She died (Dec. 21, 1807, at the early age of 44, and was buried in St. Mary's Church, Fort St. George, Madras. Cut in the pavement of this historic church, near the front entrance, is this inscription:-

ELIZABETHA

PIA CONIUX

HENRICI GWILLIM EQ. AUR.

VIXIT ANN. XLIV. MENSES VIII

H. S. E.

MDCCCVII. "

A title of interest to the student of New-World ornithologic literature is the following, in the E.S.W. library:-

Gundlach, Johannes. (1810-1896).
1852. Original drawing book. 8vo. pp.121 + 2. Cardenas, Cuba.

This interesting volume has about 67 spirited outline drawings of birds with a loose leaf sketch of another taken from a letter addressed to Gundlach and postmarked "Habana, 18 Oct. 1852." It is addressed to him at Cardenas, Cuba, where he lived for many years. The birds are in each instance given their English, Spanish and zoological names. This item was secured for the E.S.W.Library through the courtesy of Dr. Chas. W. Richmond.

For second copy

~~Duplicate~~ (original & carbon) for union

Gundlach, Johannes (1810-96.)

1852. Original drawing book. 8vo. Pp. 121+2. Cardenas, Cuba.

This interesting volume has about 67 spirited outline drawings of birds with a loose leaf sketch of another taken from a letter addressed to Gundlach and postmarked "Habana, 18 oct. 1852." It is addressed to him at Cardenas, where he lived for many years. The birds are in each instance given their English, Spanish and Zoological names. This item was ~~obtained~~ secured for the A. S. W. Library through the courtesy of Dr. Chas. W. Richmond.

Copy to be used in Aukca?

Do not retype

COUES, Elliott.

1878-80 (American Ornithological BiBliography). 8vo. Miscellaneous Publications, No. 11, Appendix, and Bulletin, Vol. V, Geological and Geographical Survey of the Territories, U. S. A.

The first instalment of this extremely important bibliography of titles dealing with American ornithology was published as a List of Faunal Publications relating to North American Ornithology, an appendix to the author's Birds of the Colorado Valley, 1878 (q.v.). The remainder of the bibliography to and including part of the year 1880--forming a classic ornithologia americana. The Compiler (The Auk, April, 1928) has published a Plea for the Continuation of Elliott Coues' Ornithological Bibliography in which he was ably seconded by Dr. Witmer Stone. In part the Compiler remarked:

"No one can consult any of the Instalments of Coues' Bibliography without a mental doffing of the hat to a truly great man. The years of patient drudgery involved in that tremendous undertaking seem to dissolve in the amazement excited by the universal exhibit of the author-compiler's scholarship and erudition. Had Coues lived and if conditions had been favorable, he would, doubtless have carried to completion his ambitious scheme of a 'Universal Bibliography of Ornithology'. In this connection one is reminded that, as every one knows, Coues was under considerable obligation to his friend Professor Alfred Newton, of Cambridge, England, for

COUES, ELLIOTT.

1878-80 (American Ornithological Bibliography). 8vo.

Miscellaneous Publications, No. 11, Appendix, and Bulletin, Vol. 4, Geological and Geographical Survey of the Territories, U. S. A.

The first instalment of this extremely important bibliography of titles dealing with American ornithology was published as a list of Famous Publications relating to North American Ornithology, an appendix to the author's Birds of the Colorado Valley, 1878 (q.v.). The remainder of the bibliography to and including part of the year 1880--forming a classic ornithological encyclopedia. The Compiler (The Auk, April, 1888) has published a Plea for the Continuation of Elliott Coues' Ornithological Bibliography in which he was ably seconded by Dr. Elmer Evans. In part the Compiler reported:

"No one can consult any of the Instalments of Coues' Bibliography without a mental defining of the fact he is a truly great man. The years of patient drudgery involved in that tremendous undertaking seem to dissolve in the assurance excited by the universal exhibit of the author-compiler's scholarship and erudition. Had Coues lived and had conditions had been favorable, he would, doubtless have carried to completion his ambitious scheme of a 'Universal Bibliography of Ornithology'. In this connection one is reminded that, as every one knows, Coues was under considerable obligation to his friend Professor Alfred Newton, of Cambridge, England, for

assistance, advice and encouragement in the prpparation of his Bibliography. One of the treasures of the E.S.W. Library of Ornithology in McGill University is an autographed copy from Newton to Dr. Elliott Coues, "with the compiler's kind regards," in 1872, of "Extracts from the Record of Zoological Literature, Vols. I-VI., containing the portions relating to Aves from 1864 to 1869." This compilation proved of great help to Coues in assembling data for his great work; andthe copy in question is full of his marginal notes and bracketed paragraphs indicating the transference of numerous references whose verbiage one may readily recognize in the pages of the Instalments. There is ample evidence that when Coues decided he would be unable to finish the work so happily and successfully begun he did his best to engage the activities of others to that end. I submit the account of one of these efforts,--that unfortunately ended in failure-- in the form of a letter that came into my possession with a presentation by the author of the Instalments "to his friend W. Ruskin Butterfield". This communication deals with an arrangement two years before his death, by Coues with Ruskin Butterfield, to proceed with and complete the publication of the Bibliography, so far as it concerned British birds. For this undertaking, Coues offers every assistance in his power, including the use of his collectionoof unpublished notes."

COUES, Elliott.

1878-80 (American Ornithological BiBliography). 8vo. Miscellaneous Publications, No. 11, Appendix, and Bulletin, Vol. V, Geological and Geographical Survey of the Territories, U. S. A.

The first instalment of this extremely important bibliography of titles dealing with American ornithology was published as a List of Faunal Publications relating to North American Ornithology, an appendix to the author's Birds of the Colorado Valley, 1878 (q.v.). The remainder of the bibliography to and including part of the year 1880--forming a classic ornithologia americana. The Compiler (The Auk, April, 1928) has published a Plea for the Continuation of Elliott Coues' Ornithological Bibliography in which he was ably seconded by Dr. Witmer Stone. In part the Compiler remarked:

"No one can consult any of the Instalments of Coues' Bibliography without a mental doffing of the hat to a truly great man. The years of patient drudgery involved in that tremendous undertaking seem to dissolve in the amazement excited by the universal exhibit of the author-compiler's scholarship and erudition. Had Coues lived and if conditions had been favorable, he would, doubtless have carried to dompletion his ambitious scheme of a "Universal Bibliography of Ornithology". In this connection one is reminded that, as every one knows, Coues was under considerable obligation to his friend Professor Alfred Newton, of Cambridge, England, for

COUES, Elliott.

1878-80 (American Ornithological Bibliography). 8vo.
Miscellaneous Publications, No. II, Appendix, and
Bulletin, Vol. V, Geological and Geographical Survey
of the Territories, U. S. A.

The first instalment of this extremely important bibliography of titles dealing with American ornithology was published as a List of Named Publications relating to North American Ornithology, an appendix to the author's Birds of the Colorado Valley, 1878 (q.v.). The remainder of the bibliography to and including part of the year 1880--forming a classic ornithologia americana. The Compiler (The Auk, April, 1928) has published a Plea for the Continuation of Elliott Coues' Ornithological Bibliography in which he was ably seconded by Dr. Witmer Stone. In part the Compiler remarked:

"No one can consult any of the Instalments of Coues' Bibliography without a mental doffing of the hat to a truly great man. The years of patient drudgery involved in that tremendous undertaking seem to dissolve in the amazement excited by the universal exhibit of the author-compiler's scholarship and erudition. Had Coues lived and if conditions had been favorable, he would, doubtless have carried to completion his ambitious scheme of a "Universal Bibliography of Ornithology". In this connection one is reminded that, as every one knows, Coues was under considerable obligation to his friend Professor Alfred Newton, of Cambridge, England, for

assistance, advice and encouragement in the prpparation of his Bibliography. One of the treasures of the E.S.W. Library of Ornithology in McGill University is an autographed copy from Newton to Dr. Elliott Coues, "with the compiler's kind regards," in 1872, of "Extracts from the Record of Zoological Literature, Vols. I-VI., containing the portions relating to Aves from 1864 to 1869." This compilation proved of great help to Coues in assembling data for his great work; andthe copy in question is full of his marginal notes and bracketed paragraphs indicating the transference of numerous references whose verbiage one may readily recognize in the pages of the Instalments. There is ample evidence that when Coues decided he would be unable to finish the work so happily and successfully begun he did his best to engage the activities of others to that end. I submit the account of one of these efforts,--that unfortunately ended in failure-- in the form of a letter that came into my possession with a presentation by the author of the Instalments "to his friend W. Ruskin Butterfield". This communication deals with an arrangement two years before his death, by Coues with Ruskin Butterfield, to proceed with and complete the publication of the Bibliography, so far as it concerned British birds. For this undertaking, Coues offers every assistance in his power, including the use of his collectionoof unpublished notes."

assistance, advice and encouragement in the preparation of his Bibliography. One of the treasures of the E.B.W. Library of Ornithology in McGill University is an autographed copy from Newton to Dr. Elliott Coues, "with the compiler's kind regards," in 1872, of "Extracts from the Record of Zoological Literature, Vols. I-VI.," containing the portions relating to Aves from 1864 to 1869." This compilation proved of great help to Coues in assembling data for his great work; and the copy in question is full of his marginal notes and bracketed paragraphs indicating the transference of numerous references whose verbiage one may readily recognize in the pages of the Instalments. There is ample evidence that when Coues decided he would be unable to finish the work as happily and successfully begun he did his best to engage the activities of others to that end. I submit the account of one of these efforts,--that unfortunately ended in failure-- in the form of a letter that came into my possession with a presentation by the author of the Instalments "to his friend W. Hamlin Butterfield". This communication deals with an arrangement two years before his death, by Coues with Hamlin Butterfield, to proceed with and complete the publication of the Bibliography, so far as it concerned British birds. For this undertaking, Coues offers every assistance in his power, including the use of his collection of unpublished notes."

Among the rare and interesting Americana in the E.S.W.Library is the edito nova (1809) of John Latham's Index Ornithologicus. The appended notes to that title on the present Catalogue are by Dr. Charles W. Richmond, from whom the Compiler was able to secure what he calls a "bibliographical curiosity". The library copy is of particular interest, adds Dr. Richmond, on account of the many manuscript corrections and explanations. At the end of the work are what appears to be two printed title pages, one in French and the other in Latin, both dated M.DCCC.lX, and both differing from the above. There are MSS corrections on each, with autograph additions by the hand of Milne Edwards (from whose library it was purchased) that include references to the pages where he had in the volume "notes de moi".

A description of this unique volume and giving its history are notes in French (tallying with Dr. Richmond's annotations) in the handwriting and signature of the first owner and editor, Eloi Johanneau. These MS notations begin "Ex lib Eligii Johanneau". The first of the (front) double title-pages was later pasted in (teste "Anno X11") doubtless to satisfy the regulations of the French (Republican) Government. There is a "Preface de l'Editeur" (pp. X111 - XV1) bound in at the end with various MS corrections; P.X11 consists of "emendanda", continued on pp. X111 and X1V, with a praefatio auctoria" on pp. XV - XV1. At the end are 3½ MS pages bound in. The "Preface" is subscribed "Paris, ce 15 Juillet, 1809,"

Eloi Johanneau." The "Praefatio" is abbreviated from the Index Ornithologus of Latham. The following is the full text of the (first two front) title pages :-

JOHANNIS LATHAMI

SYSTEMA

ORNITHOLOGIAE,

sive

INDEX ORNITHOLOGICUS,

Complectens Avium Divisiones in Ordines, Genera, Species, ipsarumque Varietates; cum Descriptionibus, Synonymis Gmelini, Brissonii et Avium pictarum Buffonii, locis, magnitudine, brevibusque Notis, juxta editionem Londoni 1790; neglecta tantum plurium synonymorum farragihe, contractisque notis prolixioribus.

editio nova,

Novis Generibus et Speciebus secundi Supplementi 1801 a Lathamo editi, singulis suo loco additis, notis, pertutilissimisque octo additibus locupletata, curis et opera

ELIGII JOHANNEAU

PARISIIS,

Apud Editorem, in Aedibus Musaei, via Minorum Augustinianorum, N. 25.

---

anno M.DCCC.IX.

JOHANNIS LATHAMI

SYNOPSIS

ORNITHOLOGIAE,

sive

INDEX ORNITHOLOGICUS

Complectens Avium Divisiones in Ordines, Genera,
Species, Ipsarumque Varietates; cum Descriptionibus,
Synonymis Avium pictarum Buffoni, Brissonii vel aliorum,
locis, magnitudine brevibusque Notis, Juxta editionem
Londini 1790; neglecta tantum plurium synonymorum
farragine, prolixioribusque notis, ut ad manus notius
veniat.

secunda editio.

Nova Generibus et Speciebus accessit Supplementi loco
a Lathamo edita avium, nec non et Indicibus pertitularibus.

Guernsey, M.DCC.

PARISIIS,

Filatre Johannsen, Bibliopolam in aedibus
Tribunorum, N. 236;
M. Amans viduam Duffaux, Bibliopolam,
Via Galli, N. 130.

Anno XII. - M. DCCCIV.

Every large library inevitably collects in the course of time printed books that are so rare that they are not on the shelves of many other collections of even greater size and importance. Of natural history libraries that of the British Museum stands preëminent, and its catalogue is the standard reference work for librarians and bibliographers in that special field. To possess a literary item "not in the British Museum", it means thereby not listed in its catalogue as so far printed, raises the value, commercial and bibliographic, considerably and indicates a probable rarissima. The McGill libraries have their share of these, some of which may be mentioned. scarce items here

The student who is interested in Zoölogica nariissima must not fail to read the chapter on oriental literature where, in addition to those books already mentioned here as originating in the Far East, are several of great interest, some of them extremely rare or unique

(in the Blacker Library)
A very rare Zoölogical item is the original edition of Scopoli's Deliciae Florae et Faunae Insubricae, 1786-8, which was reprinted by the Willughby Society in 1882.

In the Blacker Library, also, is the original manuscript, plates and portraits of Antoine Fée's well-known Vie de Linné, 1832, probably the best of the many biographies of the great Linnaeus, especially as it was written by a learned and sympathetic naturalist.

Chapter X

(Lithographed books purchased in 1926-27) ~~Page 2.~~

Oriental Literature

11. Makhzan-i-ilaj-i-haywani, by Doki Nandan, in H. (Hindustani) comp.ab.1899. Indian veterinary art. ~~2 copies~~ Meeruth, 1900. pp.137.

12. Zinatu'l-khayl, by Mahdi Hasen, ab. 1835; versif. treat. on horses, in H. Cawnpore, 1907. pp. 220.

13. Faras-nama-i-Rangin, by Rangin, Sa'adat Yar Khan of Delhi, d.1835. Versified tract on horses. ~~(apr. 168,280).~~ Cawnpore, 1886, pp. 24.

14. Sayd-gah-i-Shawkati (or Baz-nama), by Yar Muhammad Khan Shawkat, comp. 1883, in H. (Hindustani). On falconry and birds. Rampur, 1884. pp.338

15. Tuhfatu's-sa'idin, by Abid b. Husayn Ansari, 1870, in H. (Hindustani), on lawfulness of the flesh of different animals for food. Lucknow (?). 1870. pp. 16.

An anonymous but well written (rubricated Persian) MS. (Ca 1780 A.D) - the Bāz-nama - on the diseases of the falcon and their treatment. In this short treatise a description of the birds is briefly given. This rare MS. was discovered by Ivanow in Hyderabad.

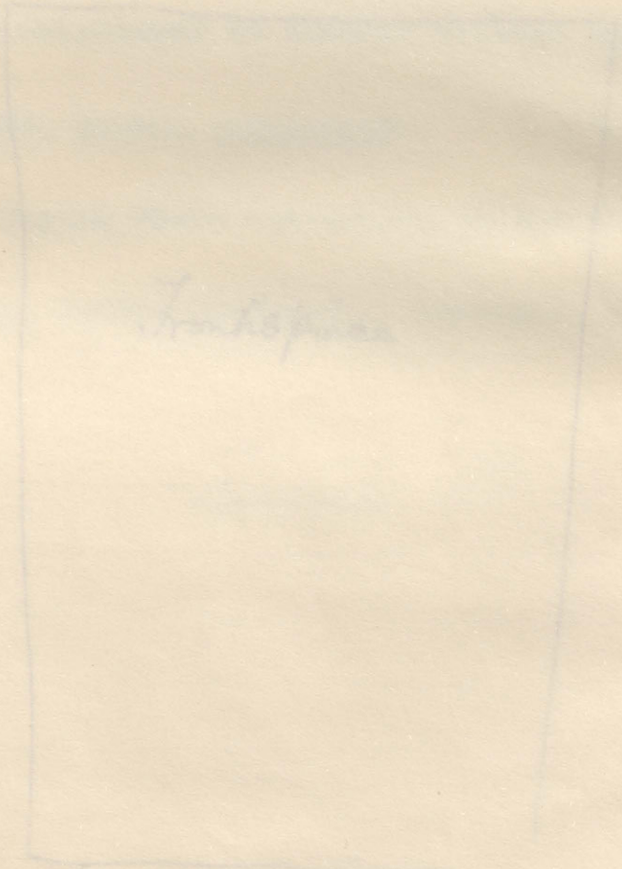
¶ A reference to the annotated Catalogue under Faras-nāma (MS., lithograms, prints) will furnish a fair account of the horse - favorite of Indian chieftains, especially of the Moslems - his varieties, diseases (also ~~and~~ their medical and surgical treatment), with excellent colored drawings, all in Persian, Arabic, Hindi etc. A rare anonymous Hindustani MS. (Tibb-i-aspān) gives further information on the same subject. Another, Khayl-nāma, transcribed in 1829 gives a ~~full~~ description of equine varieties. A versified book of the horse, ~~small 8~~ a 12mo. red-and-black-letter Persian MS., dated 1245 A.H, ~~gives~~ details the charms of that animal. Still another MS. poem in

Persian (Rustāmī) on the same subject is a fine piece of calligraphy and possesses some scientific value.

two editions, (1873 and 1884, Hindustāni lithograms) on Animals and their diseases - Hajuʾl-bahāʾim - furnish an account of Indian animal pathology and the treatment of faunal disease.

Duplicate

Brit. mus. 1875



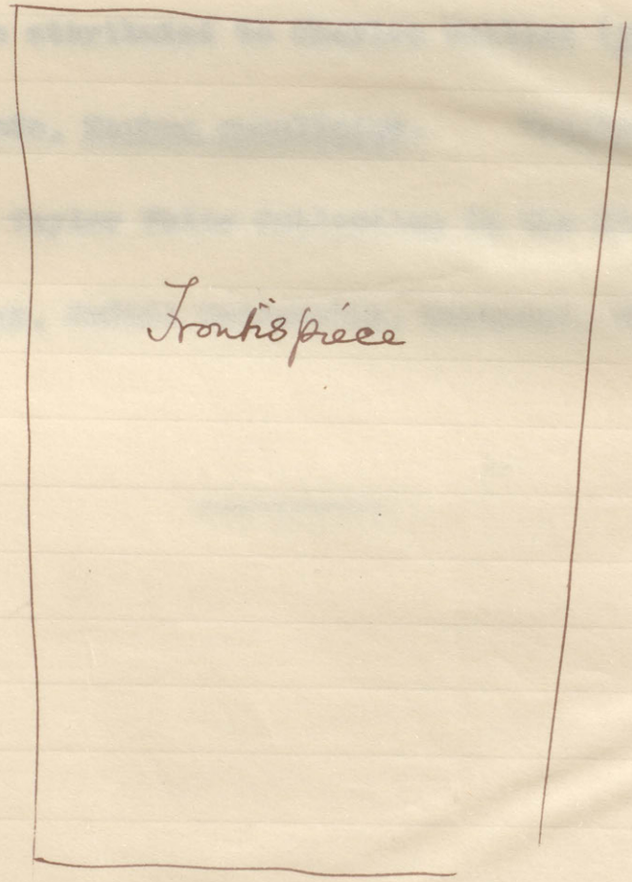
Aquarelle attributed to Charles Collins (ca. A.D. 1850)
in the Dodo Pastiche collection. Original photograph
from the Dodo Pastiche collection in the Redpath
Library of Zoology, McGill University,
Montreal, Canada.

Duplicates

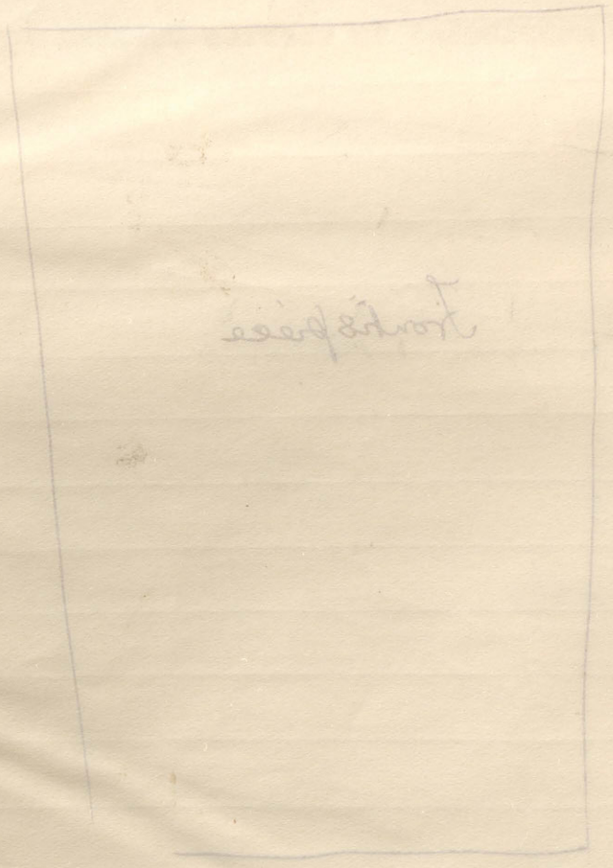
Photograph MS.

MS Introduction

Frontispiece



Aquarelle attributed to Charles Collins (ca A.D. 1736) of the Dodo, Raphus cucullatus. Original drawing from the Taylor White Collection in the Blacker Library of Zoology, McGill University Montreal, Canada.



BLACKER LIBRARY OF ZOOLOGY.

Aquarelle attributed to Charles Collins (ca.A.D.1736) of the Dodo, Raphus cucullatus. Original drawing from the Taylor White Collection in the Blacker Library of Zoology, McGill University, Montreal, Canada.

BLACKER LIBRARY OF ZOOLOGY.

Aquarelle attributed to Charles Collins (ca.A.D.1736) of the Dodo, Raphus cucullatus. Original drawing from the Taylor White Collection in the Blacker Library of Zoology, McGill University, Montreal, Canada.

1 encl.

— Henry Herbert Lyman —

1) Brief history; see enclosed reprint Can. Ent. Vol. XXXII, No. 1, 1900.

2) Full name; Henry Herbert Lyman.

3) Born; Montreal, 21st. Dec. 1854.

4) Died; Met his death in accident to the ss. Empress of Ireland off Rimouski, May 29, 1914. Can. Ent. Vol. XLVI, No. 7. July, 1914.

5) Librarian's name; Albert Frederick Winn.

6) Museum formally opened in 1882.

7) Library formally opened in Oct. 1893.

8) Library is endowed.

9) Number of Volumes in the Library about 1.500 (bound), also innumerable pamphlets. The bound volumes consist of a large number of the more important works on Entomology. The outstanding feature of this library to my mind is that it is housed in

the same room as the collection of insects-an ideal arrangement. Would it were so with the ornithological library, a fine collection of birds with all the books at hand for easy reference, but when will this be, not in our time I am afraid? Want of money and more room for extension of buildings seems to be the stumbling block apparently.

H. Mousley
May 16/1930.

P.S The other questions in yours the 2nd inst. I will answer later. Miss Abbott is away again owing to scarlet fever having broken out at home, her sister has it.

Have you seen the Handbook of the Birds of West Africa by G. L. Bates, illustrations by Grönvold, 1930. £1.10.0

May 28/30 wrote Mr T.B. order for L. S. W. don't remember I have done it

The Canadian Entomologist.

VOL. XXXII. LONDON, JANUARY, 1900. No. 1.

CONTENTS.

Editorial—H. H. Lyman 1
Gibson—Note on Danais archippus..... 2
Hempel—New Coccidæ from Brazil..... 3
Grote—Neuration of Argynnis 7
King—Bibliography of Mass. Coccidæ..... 9
Hulst—New genus and species of Phycitinæ.. 13
Fyles—Metzneria lapella..... 15
Dyar—Bombyx cunea..... 16
Lounsbury—Insect bites and effects thereof... 17
Hancock—Tettigian group of Orthoptera..... 25
Slingerland—Popular name for Chisiocampa disstria 27
Rehn—Melanoplus differentialis..... 28

HENRY HERBERT LYMAN, M. A.

We have much pleasure in presenting to our readers, at the beginning of a new volume of the CANADIAN ENTOMOLOGIST, an excellent portrait of Mr. HENRY HERBERT LYMAN, of Montreal, who has recently retired from the Presidency of the Entomological Society of Ontario. He was born at Montreal, on the 21st of December, 1854, and received his early education at the West End Acadamy and the High School, winning at the latter the Davidson medal. At McGill University, to which he proceeded, he took the degree of B. A. (Logan medalist in Geology and Natural Sciences) in 1876, and M. A. in 1880.

In 1877 he entered the firm of Lymans, Clare & Co., wholesale druggists, in Montreal, which two years later assumed the present name of Lyman, Sons & Co. He is now senior partner and also president of the Lyman Bros. & Co. (Limited), Toronto. These business houses are widely known throughout the Dominion, and have always been distinguished for their upright dealing, energy and enterprise.

Mr. Lyman has also been an active member of the volunteer force; he joined the 5th Battalion, now the Royal Scots of Canada, in 1877, as an Ensign, and rose to be Major in 1885, with which rank he retired in 1891. He has further manifested his loyalty by becoming a Fellow of the Royal Colonial Institute, and a member of the Council of the British Empire League.

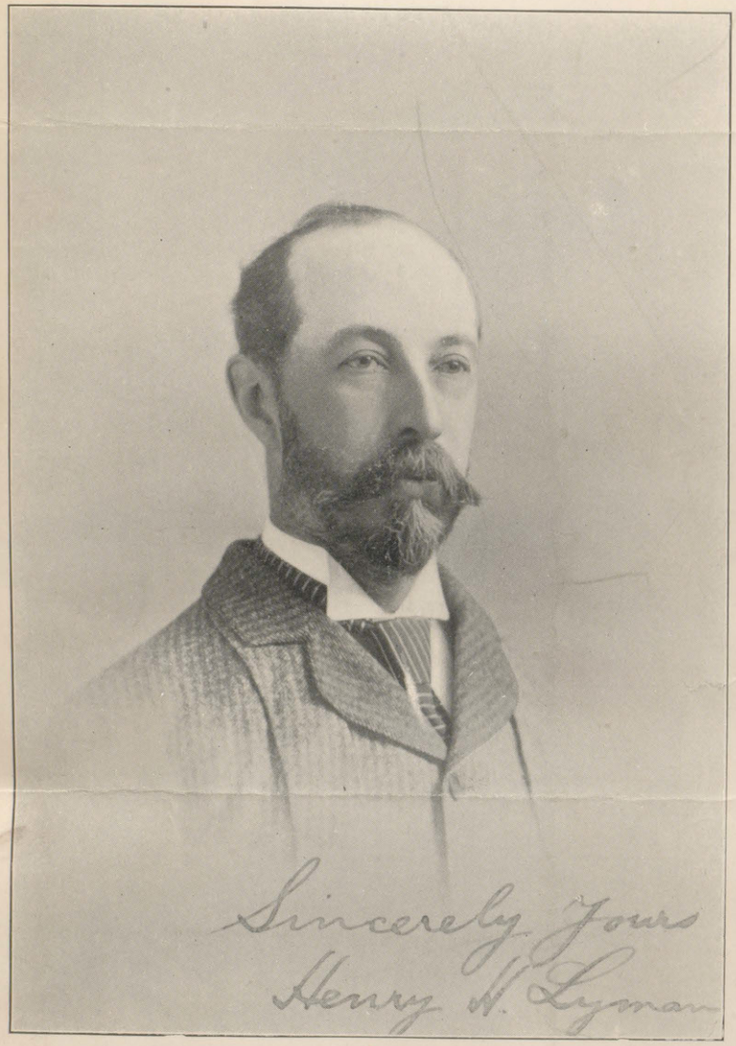
When less than eight years old he began to take an interest in insects, and to observe their ways, and when only twelve he started to form

a collection of Lepidoptera, which has now become one of the finest in Canada. His first printed observations on insects appeared in the 6th volume of this magazine (1874), and he has since contributed to seventeen of the succeeding volumes; he has also furnished useful and interesting papers to several of the Annual Reports of the Society. The value of his scientific work and attainments has been widely recognized. Since 1891 he has been a member of the Editing Committee of this magazine; in 1895 and '96 he was elected Vice-President of the Society, and in 1897 he became President. He held this highest place in the Society for two years, to the great satisfaction of the members, and retired at the last annual meeting. He is also a Vice-President of the Natural History Society of Montreal, and member of a number of Scientific Societies in the United States. For the last thirteen years he has been President of the Montreal Branch of the Entomological Society of Ontario, and has done more than anyone else to keep alive the enthusiasm of the members, and to encourage all who show any interest in the subject to persevere in the study. During all these years nearly all the monthly meetings have been held at his home, and the members have greatly enjoyed his generous hospitality.

Mr. Lyman is a notable example of what a busy man can do. Though engrossed all day long with the duties and cares of a very extensive business, which demands, more, perhaps, than any other, a close attention to innumerable details, he yet finds time not only for the pleasures of an energetic collector of insects, but also for the performance of much careful and conscientious scientific work. His published papers are valuable contributions to science, being always characterized by thorough accuracy of statement, and showing the results of painstaking and long-continued research.

NOTE ON DANAIS ARCHIPPUS, Fab.

On the 30th October last I found, on the grounds of the Central Experimental Farm, a chrysalis of Danais Archippus, Fab. This was attached to a twig of maple, about seven feet from the ground, and was quite green. When I had kept it in the office for two days it began to darken, and on the 4th November the butterfly emerged, but in a crippled condition. This occurrence is rather interesting, and the question arises, If the chrysalis had been allowed to remain on the tree, would it have given the butterfly this autumn or not until next spring? It would be interesting to know if any other person has observed the chrysalis of this butterfly so late in the season as the above, and with what results. Arthur Gibson, Central Experimental Farm, Ottawa.



HENRY HERBERT LYMAN, M. A.

PRESIDENT OF THE ENTOMOLOGICAL SOCIETY OF ONTARIO, 1897-9.

45

~~regard~~ P. 45
riod of the
ific investigation
~~iving after~~
ce of an
~~chair~~) was ~~is~~ the 8~~th~~ the
h. century
earch in
important
tion of natural
rium Naturae,
he Academia
ciety (1662),

~~As in other departments of knowledge~~ we may regard the period of the renaissance, the century that substituted scientific investigation for the authority ~~of~~ and myths of the church, ~~a striving after natural causes we may rightly regard~~ as the chief source of an enlightened zoology.

~~An important happening~~ ~~Following~~ ~~In this~~ In this connection ~~is the~~ was the awakening of Western Europe in the 16th. century and the alliance of medicine with biological research in University study, ~~was~~ followed by the founding of important academies and societies and museums for the special investigation of natural history. Among the ~~first named~~ were the Academia Secretorum Naturae, Naples, 1560 (later suppressed by the Church), the Academia Naturae Curiosum, ~~(1652)~~, the London Royal Society (1662), and the Paris Academy of Sciences, ca. 1670.

1

Mar 24. 30

or Mr. Mousley:

ANIMALS OF ALL COUNTRIES. "The Living Animals of the World in Picture and Story," with contributions by E. G. Boulenger, F.Z.S.; F. A. Bather, D.Sc., F.Finn., F.Z.S.; W. P. Pycraft, F.Z.S., and others, *Hutchinson & Co.*, N.D.; *with about 2000 illustrations, including 50 coloured plates*, 4 vols. 4to, cloth, ~~£4. 4s~~ for 42s ~~32s~~

DR. CASEY WOOD,
AMERICAN EXPRESS CO.,
38, PIAZZA DI SPAGNA,
ROME, ITALY.

WS file

In lib.

William Brown's, 18A and 18B George Street, Edinburgh.

Pls. order the above for Blacker if not in library + let me know "action" on this page —

Pls. let me know of the following or any other Dampier title is in any of the libraries. Pls. give me full titles.

In lib. (several editions embracing titles herein mentioned)

DAMPIER (William) A New Voyage round the World, describing particularly the Isthmus of America, the South Sea Coasts of Chili, Peru, and Mexico, New Holland, Sumatra, *etc. Second Edition corrected*, 1697. Vol. II. VOYAGES AND DESCRIPTIONS, in Three Parts, with General Index to both Volumes. FIRST EDITION, 1699. A VOYAGE TO NEW HOLLAND, etc., in the year 1699 (being the third volume). FIRST EDITION, 1703. Together 3 vols., *with the first series of maps, including several of America, charts, and engraved plates*, contemporary calf, newly rebacked. SCARCE. 1697-1703 **£10**

THE GEORGE GREGORY BOOK STORE, 8 GREEN STREET, BATH.

Pls. give me titles (if any) in any of the libraries of any Dioscorides on Animals. + Galen

In Osler library

Dioscorides, Περὶ ὕλης ἰατρικῆς [etc.]
Aldus [Manutius]. Venice, July 1499.

Finished 4 April

Casey A. Wood

Δλοσκορίδης. Dioscorides (De materia medica libri sex;
Eiusdem de venenatis animalibus libri duo;
Index omnium plantarum, animalium, etc. etc.
Ven., in aed. Aldi et Andreae Socerii, 1518. (O.)

See attached leaves also (2-4)

Britain, and their Allies, with Hand Mosses, Pepperworts, and Horsetails, Warne, 1889] with fully 300 coloured plates, 4 vols. royal 8vo, cloth, 35s 378

SAUNDERS (Howard) Illustrated Manual of British Birds, London, 1899; Second EDITION REVISED AND ENLARGED, with 384 illustrations and 3 coloured maps, 8vo, cloth, 16s 379

Catalogue of Books on Sale at

38 PRESCOTT (W. H.) Historical Works, comprising Conquest of Mexico, 2 vols.; Conquest of Peru, 2 vols.; Philip the Second, 3 vols.; Charles the Fifth, 2 vols.; Ferdinand & Isabella, 2 vols.; Miscellanies, 1 vol. *With portraits*, 12 vols.

39 STERNE (Laurence)

THE AMOUNT IN BRACKETS THUS [5s.] DENOTES PUBLISHED PRICE

Dioscorides (Sir Library)

The same. De Medica Materia libri V. . . . . De cane rabido; déque notis quæ morsus ictusve animalium Venenum relinquentium sequuntur etc. etc. Colon, opera ... Ioannis Soteris, 1529.

The same. De materia medica libri quinque. etc. etc. illustravit Curtius Sprengel, Tomi 2. 8vo. Lipsæ, 1829-30. (Greek & Latin text with biogr. etc.).

The same. Ed. Max Wellmann. 3 voll ... la. 8vo. Berol., 1906-14.

The same. De medicinali materia libri quinque. De Virulentis animalibus etc. etc. Joanne Ruellio interprete. fol. (Parrhisiorum Gymnasio) in off. Henrici Stephani, (1516).

The same. Libri sex, Ioanne Ruellio interprete ... Additis ... Annotationibus sive Scholijs ... Per Gualtherum Rivium. etc. etc. Aut. Conrado Gesnero ... fol. Franc (oforti), apud Chr. Egenolphum, (1549).

The same. De Medica materia Libri sex. Interprete Marcello Virgilio. etc. etc. fol. (Florentiæ, per hæredes Ph. Iuntæ 1518.)

Dioscorides. contd. (Osler Library)

The same. Petri Andreae Matthioli Commentarii, ... Adiectis ... plantarum & animalium imaginibis, eodem authore. Sm. fol. Ven., in off. Erasmiana, apud Vincentium Valgrisium, 1554.

The same. Commentaires de Pierre Andre Mattiole sur les six Livres de Ped. Dioscoride Anazarbeen de la Materie medecinale. ... Enrichis pour la troisiéme fois, d'un grand nombre de pourtraits, de plantes, & animaux tirés au vif... fol. Lyon, par Guillaume Rouille, 1572.

The same. Di i Discorsi di M. Pietro Andrea Mattioli... fol. Ven., appresso Bartolomeo de gli Alberti [at end 'Appresso Domenico Nicolino'], 1604.

The same. Arzneimittellehre in 5 Büchern. Übersetzt und mit Erklärungen versehen von J. Berendes. la 8vo. Stuttgart, 1902.

The 3rd Maḳāla (i.e. 'Discourse', book) of Dioscorides, in the Arabic translation made (? in Spain) by Stephanus ibn Masail; copied at Bagdad by Al-Hasan ibn Ahmad ibn Muhammad al-Naṣawi. Illustrated: written in 637 A.H. [= 1239 A.D.]: 9 3/4 x 6 3/4 in., V + 211 leaves.

Dioscorides contd. (Osler Library).

Barbarus (Hermolaus) 1454-93. In Dioscoridem Corollariorum libri quinque. Colon., apud Ioan. Soterem 1530.

Premerstein (Anton [M.A.] von) 1869-
Anicia Iuliana im Wiener Dioskorides-Kodex. Mit 1 Tafel und 6 Textillustr. fol. Wien etc. 1903.

Wellmann (Max).
Die Schrift des Dioskurides . . . . Ein Beitrag zur Geschichte der Medizin. 8vo. Berl., 1914.

In the McGill University Library (only work re Dioscorides)

Weber, R.T.
De Dioscuridis etc. 8vo. Lipsiae, 1888.
(An inaugral dissertation).

Ms dup

192

¶ The literature of mammalogy is next to that of ornithology the most extensive of that devoted to vertebrate zoology. A few of the more important treatises, taken at random, and covering ~~may be recorded here~~.

some of the more important divisions of the subject may be recorded ~~here and [illegible] same~~ here. Several of these titles are referred to elsewhere in this Introduction. ¶ Although not a recent publication, the Introduction to the Study of Mammals, 1891, by Flower and Lydekker is of great value to the student; and the same may be said of Die Säugetiere, 1904, of Max Weber. Another instructive treatise is W. K. Gregory's Orders of Mammals, one of the Bulletins, Vol. XXVII, 1910, issued by the Am. Mus. Nat. History, New York. Of the many works on ~~animals~~ vertebrate paleontology, H. F. Osborn's Age of Mammals, 1910, is to be recommended.

1876. The Complete Angler, being a facsim. reprint of the 1st ed. pub. in 1653.
London. 1876. 10+(16)+246. ill. por.

1896. The Complete Angler, being a facsim. reprint of the 1st. ed. pub. in 1653 with a preface by Richard le Gallienne.
London, 1896. pp. 10+(16)+246. ill.

[1925]. The Complete Angler, with ill. by James Thorpe.
London, T.N. Foulis, [1925]. pp. 16+221. por. pl.

This is the only edition in the Blacker Library all the others being in the Main Library. Hhe

[n.d.]. The Complete Angler. With an intro. by C.H. Dick
London, n.d., pp. 20+245 (The Scott Library).

+ 1825. The Complete Angler, two parts, the first by Izaak Walton, the second by Chas. Cotton.
London, 1825, pp. 16+314+(4). pl.
(printed by Wm Pickering).

1846. The Complete Angler, with lives and notes by Sir John Hawkins; ed. by James Rennie.
Manchester, 1846. pp. (4)+328. ill. por. pl.

1856. The Complete Angler, ed. by Edw. Jesse.
London, H.G. Bohn, 1856. pp. 19+(3)+496, ill. por. pl.

1870 The Complete Angler, ed. by Edw. Jesse.
London, 1870. pp. 20+496. ill. por.
(Bohn's Library).

AUTHORS' CLUB,
2, WHITEHALL COURT,
S. W. 1.

TELEPHONE,
VICTORIA 3160 (6 LINES)

TELEGRAMS "AZYRITES, LONDON"

Dear Moseley: - We ought to have in the Blacker Library several editions of the Complete Angler. If these are not in lib. pls. order them & let me know action:

OFFERED BY

THE EXPORT BOOK CO.,

3 HAVELOCK TERRACE :: PRESTON

Telegraphic Address - "EXPORT, PRESTON." England

Lpool. w/s 19th Cent.

107 .—The Complete Angler by Izaak Walton, being a facsimile reprint of the first edition of 1653, post 8vo., cl., 5s.; 1876. Yes in library H.M.

17. ANGLING RARITIES.—Walton and Cotton's Complete Angler, with lives of authors and notes by Sir John Hawkins, illustrated with 15 plates, 8vo., an uncut copy in the original boards with adverts, 50s. 1822. John Major's edition of 1824, illustrated with plates and illustrations in the text, cr. 8vo., orig. boards uncut with adverts., 50s.; 1824. (Collector's Copies; very rare).

Ordered Staff

Not in library, H.M.

ordered H.M.

Which edns. of the Complete Angler are in lib.?

Over

Case.

See over

B. Student's and Librarian's Index of Author's Titles on Vertebrate Zoology, Geographically and Chronologically Arranged

Here leave 6 lines

original + carbons

se. General Titles on Vertebrate Zoology.

Ornithological Titles. General.
Birds of the World.

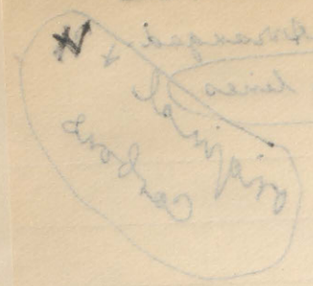
irds of North and Middle Africa. [& incl. E. & W. Africa

Birds of South Africa.

Birds of U.S.A. and Canada.

ds of Middle America and the West Indies.

ds of South America.



Birds of India and Ceylon.

Birds of Malaysia, Borneo and the Philippines.

Birds of Spain and Portugal.

Birds of the Russian Empire.

Index of Australasia.

Index of Oceania and
the South Seas.

Index of Asia = ~~and~~
~~Transparency~~

Index of Belgium and Holland.

Index of Scandinavia and
North Europe.

Index of ~~Germany~~ China and Japan.

Index of Persia and Switzerland.

Index of Germany and Middle Europe.
~~Middle Europe and Germany~~

Index of Great Britain.

Original MS

Original
1 carbon

(as a part of the study of Migration)

The literature of Bird Banding ~~is not so recent as is~~ comparatively ~~commonly supposed~~ is of recent date. Alex. Wetmore (Encycl. Brit. 14th ed., p. 927) ~~gives~~ refers to the attempt to mark wild birds with small bells, paint, colored yarns etc as much as 125 years ago but it was not until the introduction of aluminum bands stamped that the method became of scientific value. In 1899 C.C. Mortensen of Denmark began in systematic fashion to band ducks, starlings, storks and birds of prey. Such good results followed the plan that it was everywhere adopted. In

In the American Bird Banding Association began the work in 1909 which was afterwards taken over by the Bureau of Biological Survey, Dept. of Agriculture at Washington. Now more than 1500 persons are regularly engaged in the work & more than 350,000 birds have been banded. The accounts of this enterprise are found mainly in the ~~periodical literature of the~~ monthly Bird Banding Notes, a mimeographed periodical (1922 – date) issued by the Bur. Biol. Survey.

B. STUDENT'S AND LIBRARIAN'S INDEX OF AUTHOR'S TITLES ON VERTEBRATE ZOOLOGY, GEOGRAPHICALLY AND CHRONOLOGICALLY ARRANGED.

Vz.gl. GENERAL TITLES ON VERTEBRATE ZOOLOGY.

ORNITHOLOGICAL TITLES: GENERAL.

Birds of the World.

Birds of North and Middle Africa. [Includ. E. & W. Africa.]

Birds of South Africa.

Birds of U.S.A. and Canada.

Birds of Middle America and the West Indies.

Birds of South America.

Birds of India and Ceylon.

Birds of Malaysia, Borneo and the Philippines.

Birds of Spain and Portugal.

Birds of North and Middle Africa. Includ. N. & W. Africa.

Birds of South Africa.

Birds of U.S.A. and Canada.

Birds of Middle America and the West Indies.

Birds of South America.

Birds of India and Ceylon.

Birds of Malaysia, Borneo and the Philippines.

Birds of Spain and Portugal.

Birds of the Russian Empire.

Birds of Australasia.

Birds of Oceania and the South Seas.

Birds of Austria-Hungary.

Birds of Belgium and Holland.

Birds of Scandinavia and North Europe.

Birds of China and Japan.

Birds of France and Switzerland.

Birds of the Mexican Region.

Birds of Australia.

Birds of Oceania and the South Seas.

Birds of Austria-Hungary.

Birds of Belgium and Holland.

Birds of Scandinavia and North Europe.

Birds of China and Japan.

Birds of France and Switzerland.

Birds of Germany and Middle Europe.

Birds of Great Britain.

Birds of Germany and Middle Europe.

Birds of Great Britain.

¶ As a concrete example of the purpose of the Student's Index, suppose it is desired to find a modern book on the birds of British Guiana. The ~~titles~~ titles most likely to furnish full information on the subject are (geographically) to be sought ~~under~~ first under ~~(I)~~ (II) General Treatises on Animals of the World. The Index Indicum furnishes the page for that and other captions and we find a recent treatise (in English) that will probably yield some of the required information, 1897, Lydekker's Natural History. Then we search for a ~~history~~ history of birds in general and soon find J. Knowlton and Ridgway. Next we turn to the Birds of the Americas ~~South America~~ and find the list of books on the Vertebrate Zoology of South America to follows, from 1918. Cory and Hellmayr. Finally the heading (over) Birds of South America from which we choose the specific title ~~brings us still nearer a special monograph on the~~ Birds of British Guiana ~~where we find the well~~ well-known treatise, 1912-17, Charles Chubb. Armed with these books a complete account of the subject sought is at once available.

> 1904. Eugène Andrés Guiana.

Miss Bates
1 original
1 carbon

Preface to Catalogue

~~III~~ 2. Cetos. A partially Annotated Catalogue of the Titles on Vertebrate Zoology in the Libraries of McGill University.

M.S. Title

~~de Preface to Vol. I.~~
~~Cat. Br. Mus. Nat. Hist.~~
~~+ Compare~~

~~CATALOGUE PREFACE.~~

Chronologically arranged.

This section is essentially an authors catalogue. In the absence of any name entitled to authorship, real or assumed, in the work under inspection, the title is listed under the caption "Anonymous", with a secondary heading of the principal word of the title, and, when deemed useful, a cross reference is also given. Titles of ~~publications~~ periodicals — those bugbears of the Cataloguer — are generally entered under the name of the particular Society or body presumed to be responsible for their issue. In addition a cross reference is made to the ordinary title of the magazine or serial if this precaution is deemed necessary to assist in finding the publication in question. The same treatment is accorded Expeditions, Surveys and Explorations by Governments, Societies, Museums or other bodies.

Titles in Russian, Arabic, Greek, Japanese, Chinese, Servian and other languages not employing Italian letters are generally if transliterated generally follow the rules laid down by the Cataloguers of the British Museum.

It was the original purpose of the Compiler to append notes of evaluation to at least to all important (and most of the minor) publications, but for many reasons this practically plan had to be abandoned. ~~for reasons not necessary to state at this time.~~ However it is believed that the annotations provided will ~~on the whole~~ furnish ~~a fair~~ the student and librarian with a fair idea of the value of the great majority of the ~~titles as a~~ fundamental in the mass treaties.

With the exceptions already noted, the (estimated) 25.000 bound and unbound pamphlets, ~~pamphlets, reports~~, excerpts, separates, reprints, collections of ~~et~~ newspaper and magazine clippings on subjects relating to Vertebrate Zoology, ~~etc~~ although entered in the Card catalogues of the University are not recorded or evaluated here. Many of these titles may be ~~for~~ important contributions to Zoological literature, much more important than many separately bound volumes - yet there is ~~neither~~ in the appended list no place for them.

Index to Students

Preface & Index

Index Indicum, of Student's and Librarian's author Index.

Page

eneral Treaties on Vertebrate Zoology.

Vertebrates of the world - - - - - -

Birds

Africa.

General treaties. ~~on Africa~~ - - - - - -

Birds - - - - - -

Mammals - - - - - -

Fishes - - - - - -

Reptiles and amphibia - - - - - -

America ~~a~~ (~~the entire~~ Both continents.)

General Treatises - - - - - -

Birds

mammals

Fishes ~~and amphibia~~

Reptiles

~~America, North~~ U. S. A. and Canada.

Birds

mammals

Fishes

Reptiles ~~and amphibia~~

B. STUDENT'S AND LIBRARIAN'S INDEX OF AUTHOR'S TITLES ON VERTEBRATE ZOOLOGY, GEOGRAPHICALLY AND CHRONOLOGICALLY ARRANGED.

Vz.gl. GENERAL TITLES ON VERTEBRATE ZOOLOGY.

ORNITHOLOGICAL TITLES, GENERAL.

Birds of the World.

Birds of North and Middle Africa. Includ. E. & W. Africa.

Birds of South Africa.

Birds of U.S.A. and Canada.

Birds of Middle America and the West Indies.

Birds of South America.

Birds of India and Ceylon.

Birds of Malaysia, Borneo and the Philippines.

Birds of Spain and Portugal.

Birds of North and Middle America. Inclus. N. & M. Africa.

Birds of South Africa.

Birds of U.S.A. and Canada.

Birds of Middle America and the West Indies.

Birds of South America.

Birds of India and Ceylon.

Birds of Malaysia, Burma and the Philippines.

Birds of Spain and Portugal.

Birds of the Russian Empire.

Birds of Australasia.

Birds of Oceania and the South Seas.

Birds of Austria-Hungary.

Birds of Belgium and Holland.

Birds of Scandinavia and North Europe.

Birds of China and Japan.

Birds of France and Switzerland.

Birds of Germany and Middle Europe.

Birds of Great Britain.

E. STUDENT'S AND LIBRARIAN'S INDEX OF AUTHOR'S TITLES ON VERTEBRATE ZOOLOGY, GEOGRAPHICALLY AND CHRONOLOGICALLY ARRANGED.

Vz.gl. GENERAL TITLES ON VERTEBRATE ZOOLOGY.

ORNITHOLOGICAL TITLES, GENERAL.

Birds of the World.

Birds of North and Middle Africa. Includ. E. & W. Africa.

Birds of South Africa.

Birds of U.S.A. and Canada.

Birds of Middle America and the West Indies.

Birds of South America.

Birds of India and Ceylon.

Birds of Malaysia, Borneo and the Philippines.

Birds of Spain and Portugal.

Birds of the Russian Empire.

Birds of Australasia.

Birds of Oceania and the South Seas.

Birds of Austria-Hungary.

Birds of Belgium and Holland.

Birds of Scandinavia and North Europe.

Birds of China and Japan.

Birds of France and Switzerland.

Birds of Germany and Middle Europe.

Birds of Great Britain.

E. STUDENT'S AND LIBRARIAN'S INDEX OF AUTHOR'S TITLES ON VERTEBRATE ZOOLOGY, GEOGRAPHICALLY AND CHRONOLOGICALLY ARRANGED.

Vs.gl. GENERAL TITLES ON VERTEBRATE ZOOLOGY.

ORNITHOLOGICAL TITLES: GENERAL.

Birds of the World.

Birds of North and Middle Africa. Includ. E. & W. Africa.

Birds of South Africa.

Birds of U.S.A. and Canada.

Birds of Middle America and the West Indies.

Birds of South America.

Birds of India and Ceylon.

Birds of Malayesia, Borneo and the Philippines.

Birds of Spain and Portugal.

Birds of North and Middle America. Coues. E. & W. Africa.

Birds of South Africa.

Birds of U.S.A. and Canada.

Birds of Middle America and the West Indies.

Birds of South America.

Birds of India and Ceylon.

Birds of Malaysia, Borneo and the Philippines.

Birds of Spain and Portugal.

Birds of the Russian Empire.

Birds of Australasia.

Birds of Oceania and the South Seas.

Birds of Austria-Hungary.

Birds of Belgium and Holland.

Birds of Scandinavia and North Europe.

Birds of China and Japan.

Birds of France and Switzerland.

Birds of Germany and Middle Europe.

Birds of Great Britain.

MS

× Catalogue + ~~Introduction~~ Preface
Incom

292-294

This Introduction and Catalogue will not notice to any extent the literature of ~~anthropology~~ veterinary medicine or surgery, of anthropology, microscopical anatomy, biochemistry, zoological cytology, pathology, physiology, specific morphology, microbiology, experimental biology, experimental psychology, serology, vitalism, Mendelism nor systematic natural philosophy (apart from vertebrate zoology). The Compiler knows that all these subjects interest (or should interest) the student but he has this disposal neither the time nor the space required for even a partial catalogue or review of the (extensive) literature ~~is at his disposal~~.

Most of the titles of the above-mentioned borderland literature, directly or indirectly related to medical knowledge, will be found in the card catalogues of the Osler and medical libraries of the University.

(last introduction of pencil
Norman in middle of paragraph)

MS

Although ~~the present work~~ Introduction and Index of the present volume deals almost exclusively with the literature of Vertebrate Zoology most of the titles in natural history shelved in the Blacker Library and allied departments of the University have also been published, for purposes of reference, ~~Moreover, many titles apparently~~ whether they seem to be only botanical, geological or invertebrate zoological subjects they also discuss ~~important~~ topies connected with ~~the~~ ~~studies subject~~ of interest to the investigator in ~~vertebrate subjects~~ ~~of vertebrate Zoology~~ Students of vertebrate Zoology.

Miss Bates
1 original
1 carbon
double space

Student's and Librarian's Ready Index to short Author-titles on Vertebrate Zoology arranged Geographically and in Chronologic order.

…n D…
…ehmlich von …
Natur und Eig…

This classified list is intended to furnish a ready reference to the more important printed books, ~~works, writings, treatises,~~ codices atlases, etc, on the various subdivisions of the vertebrate Zoology. As a rule only one title, (presumably the most important) is given from the list of publications (including reprints and editions) of a particular author on a particular subject; other publications by the author in the McGill collection, if any, will be found under their appended to the author's name in the Catalogue.

The main purpose of this Index is to enable those unacquainted with the bibliography of Vertebrate Zoology to find in a few minutes, the title of a work whose identity no Catalogue reveals and which might easily escape the notice of any but a specially informed librarian. Owing to its classified arrangement it ought to be of distinct assistance to students and librarians generally.

If the treatise sought cannot be readily traced in the following list — because it is not in the McGill libraries — the following method of search will be found useful.

How to find information regarding titles in vertebrate zoology.

It not infrequently happens to both the advanced student and the librarian that difficulties arise in locating the proper title of a book, an atlas, a manuscript, or other item (preparatory to consulting the work itself) or a periodical, in the literature of zoology. The main difficulty lies, as a rule, in the possession of an incomplete or imperfect heading. It is like searching for a person residing in New York or London whose name is improperly spelled or whose the number of street is inaccurately given. One seeks John Smith, 2073 ~~Main St.~~ Bayview St. when ~~he asks~~ Henry Smith, 1073 ~~Hayfield~~ Rayview Avenue is where he really lives. Then, again, an extract from or a separate of a paper in some obscure journal masquerades as and is not uncommonly advertized as a distinct publication, or ~~as it is say~~ a perfectly legitimate serial with its own pagination is everywhere described like ~~this title~~ (to give one of many such titles) the North American Fauna. ~~No. 17~~ It would need a library dowsing rod to discover it in most catalogues (unless it be several times "cross-referenced") except under United States. — Department of Agriculture. — Biological Survey Division. — North American Fauna, 1889 - date. There are many other stumbling blocks to be leaped or pushed aside before a hidden title is run to earth but these two obstructions will

serve to illustrate the point. If now, in nine cases out of ten a reference to our best authority, the Catalogue of the British Museum (Natural History) will afford at once the required information. Failing that source, W. H. M. England of the B. M. (Nat. Hist.) Library suggests (and the Compiler quite agrees) that further search may be made as follows: - the date of issue be comparatively recent, i.e. between 1864 and 1930 the Zoological Record with its continuations should be next consulted. If no trace is there discovered, try that painstaking source of knowledge, the Bibliotheca Historico-Naturalis of Wilhelm Engelmann (and his subsequent coadjutors J. V. Carus and O. Taschenberg) that pretty well covers the whole range of literary vertebrate (and other) zoology from 1700 - 1930. There are several other original sources of information + for books etc published before 1700, Hain and Brunet; between 1835 - 1930 the supplements to the Archiv f. Naturgeschichte; between 1878 - 1930, the Zoologischer Anzeiger. These investigations made, and the title sought still eludes the investigator, the research student is justified in declaring either that his first-hand description of the title is insufficient or inaccurate, that the work is an excerpt from some obscure item periodical (or other item) or that he is the lucky possessor of a "unica aut Zoologica rarissima", not recognized by any of the usual courts of record.

~~Index~~

~~Index~~

mus Bales
Type + double
space.

on the various sections of vertebrate Zoology

Although a few periodicals are included in this list it is by the Compiler considered desirable to speak of the most important in a special chapter, to which the student is referred. The Catalogue will be found to be well provided with such titles in all scientific languages. As a rule, only one (usually the first) edition of a work is noted, other printings are generally to be found and recorded appended in the Catalogue.

(Anat.) = Anatomy: (Aust.) = Australia; Australasia: (Bib.) = Bibliographic or biographic work: (Austria.) = the former Austrian Empire: (Batr.) = Batrachians, Amphibia: (Belg.) = Belgium: (Can.) = Canada: (Cat.) = Catalogue, list: (Class.) = classification, nomenclature, or generic specific list: (Comp. Zool.) = comparative Zoology: (Dict.) = dictionary, encyclopedia: (Dk.) = Denmark: (Ext.) = separata, extract: (G.B.) = Great Britain: (Ger.) = Germany, middle Europe: (Evol.) = Evolution, Darwinism: (Geog.) = Geographical distribution: (Holl.) = Holland, the Netherlands: (Hung.) = Hungary: (It.) = Italy: (Mass.) = Massachusetts, U.S.A.: (Med. Sc.) Medieval science: (Mus.) = museum, collections. (Neur.) = neurology: (Ool.) = Oology, Nests and Eggs: (Oph.) = ophthalmology: (N.Z.) = New Zealand. (Ont.) Province of Ontario, Canada. (Paleon.) = paleontology, or Period fossils, extinct species: (Per.) = Periodical or serial: (Polyn.) = Polynesia: (Pop.) = Popular: (Psych.) = psychology, animal behavior. (Que.) Province of Quebec, Canada: (Russ.) = Russian Empire: (Scand.) = Scandinavia: (Seneg.) = Senegambia: (Text-b.) = Textbook. College manual: (Tr.) = Travels. (U.S.A.) = United States: (Voy.) = Voyages, expeditions, travels.

(++)

The following abbreviations are employed in this Index.

002

AN INTRODUCTION TO THE LITERATURE
Of
VERTEBRATE ZOOLOGY

based chiefly on the titles in the Blacker Library of Zoology, the Emma Shearer Wood Library of Ornithology, the Bibliotheca Osleriana and other Zoological Collections of McGill University.

----"----

A. An Introduction to the Literature of Vertebrate Zoology.

B. Student's and Librarian's Index to Selected Titles on Vertebrate Zoology, arranged in Geographic and Chronologic Order.

C. A partially Annotated Catalogue of the Vertebrate Zoological Titles in the University Libraries. A to .

Vol. I.

Compiled and Edited

By

Casey A. Wood

----"----

[Here publisher's imprint →

1930

Title page

21 JUL 1930

RECEIVED
OXFORD PRESS
27 JUN 1930

display
suggestion

AN INTRODUCTION TO THE LITERATURE

Of

VERTEBRATE ZOOLOGY

based chiefly on the titles in the Blacker Library of Zoology, the Emma Shearer Wood Library of Ornithology, the Bibliotheca Osleriana and other Zoological Collections of McGill University, Montreal, Canada.

----"----

A. An Introduction to the Literature of Vertebrate Zoology.

B. Student's and Librarian's Index to Selected Titles on Vertebrate Zoology, arranged in Geographic and Chronologic Order.

C. A partially Annotated Catalogue of the Vertebrate Zoological Titles in the University Libraries. A—.

Vol. I.

Compiled and Edited

By

Casey A. Wood

----"----

Oxford University Press. → 1930.

MS

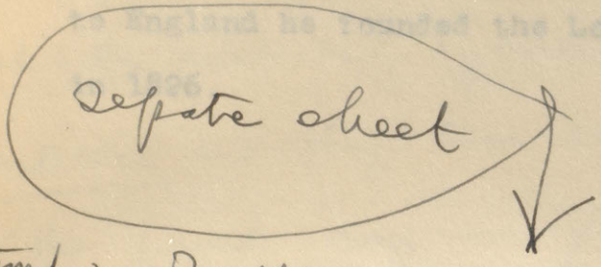
Robert Hermann Schonburgk was born at Freiburg near Rossbach in 1804. In 1831 he made a scientific survey of the Virgin Islands where he was established as a merchant. During 1831-35 he explored and reported upon (see his treatises on the subject) British Guiana on a commission from the Royal Geographical Society. In the latter ~~country~~ County he discovered the magnificent Victoria regia lily during a trip up the Berbice River. He was knighted in 1844. In addition to his various scientific works on British Guiana he published a very useful History of Barbados and after holding several offices under the British government he died in 1865 at Schoneberg, near Berlin. He accompanied his brother Richard (who wrote Reisen in British-Guiana, 1840-44) on several exploratory expeditions.

Robert Hermann Schomburgk was born at Freiburg near Rossbach in 1804. In 1831 he made a scientific survey of the Virgin Islands where he was established as a merchant. During 1831-5 he explored and reported upon (See his treatises on the subject) British Guiana on a commission from the Royal Geographical Society. In the latter country he discovered the magnificent Victoria regia lily during a trip up the Berbice River. He was knighted in 1844. In addition to his various scientific works on British Guiana he published a very useful History of Barbados and after holding several offices under the British government he died in 1865 at Schöneberg near Berlin. He accompanied his brother Richard (who wrote Reisen in Britisch-Guiana, 1840-44) on several exploratory expeditions.

MS

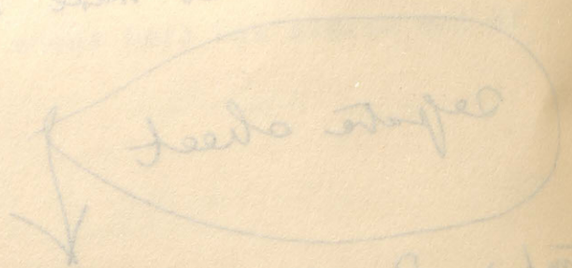
Peter Simon Pallas was born at Berlin in 1741, and in 1768, having acquired an international reputation as a naturalist, was invited by the Empress Catherine to St. Petersburg. He spent six years (1768-1774) in explorations of both European and Asiatic Russia collecting an enormous array of scientific (mostly zoologic) specimens which formed the basis of many ethnic, geographic, floral and faunal workr. He finally settled in the Crimea and died there in 1811.

Peter Simon Pallas was born at Berlin in 1741 and in 1768, having acquired an international reputation as a naturalist was invited by the Empress Catherine to St. Petersburg. He spent six years (1768-74) in explorations of both European and Asiatic Russia collecting an enormous array of scientific (mostly Zoologic) specimens which formed the basis of many ethnic, geographic & floral and faunal works. He finally settled in the Crimea and died there in 1811



Sir Stamford Raffles, son of a British sea-captain was born in Jamaica, July 5th, 1781. In 1795 he was appointed by the East India House and settled in Penang. In 1805 he accompanies Lord Minto on an expedition to Java. In 1816 ill health required his return to England where he wrote his History of Java & was knighted. In 1818 he returned to the Far East and formed a settlement at Singapore. Returning to England he founded the London Zoological Society, and died in 1826

N.B. Manatus, 1491?, [illegible] of the vertebrates. Aristotle



Sir Stamford Raffles, son of a British sea-captain, was born in Jamaica, July 5th. 1781. In 1795 he was appointed to East India House and settled in Penang. In 1805 he accompanied Lord Minto on an expedition to Java. In 1816 ill health required his return to England, where he wrote his History of Java and was knighted. In 1818 he returned to the Far East and formed a settlement at Singapore. Returning to England he founded the London Zoological Society, and died in 1826.

Sir Stamford Raffles, son of a British sea-captain, was born in Jamaica, July 5th. 1781. In 1795 he was appointed to East India House and settled in Penang. In 1805 he accompanied Lord Minto on an expedition to Java. In 1816 ill health required his return to England, where he wrote his History of Java and was knighted. In 1818 he returned to the Far East and formed a settlement at Singapore. Returning to England he founded the London Zoological Society, and died in 1826.

animal pictures though they are not, as a rule, so well executed. ¶ During the Glacial Period paintings of birds on the walls of caves in France and Spain — twelve species have been recognized in a single cave near Cadiz — were recently discovered.

¶ However, the first serious writer on zoology whose works have survived is Aristotle, (384–322 B.C.), physician and friend of the King of Macedon, grandfather of Alexander the Great. At the age of 18 he left Stagira went to Athens and became a pupil of Plato with whom he resided until the death of the latter 20 years afterwards. In 342 B.C. he became, at the invitation of Philip of Macedon, instructor of his son Alexander. He subsequently returned to Lesbos where he married the daughter of the ruler of that State.

In 334 B.C. Aristotle came to Athens and opened a school — the celebrated Lyceum. His followers were known as Peripatetics and they have survived under various names until the present day.

file MS

M.P. Manutius, 1499 ... editions of which furnish a ... the vertebrates, ... Aristotle

NS

038

¶ Aristotle made a rough classification of his birds into eight principal categories, his follower Pliny the Elder, relying entirely upon characters taken from the feet, divided them into three. ¶ The McGill libraries are fortunate in the possession of 20 editions of Aristotle and an 14th century ms. of his Zoological treatises. ¶ Three centuries were to elapse before the second outstanding figure in zoological literature appeared. Caius Plinius Secundus (23-79) A.D. known as the Elder or the Naturalist ¶ He was the author of numerous works, social, political and philosophic among them a Historia naturalis in 37 books, most of Liber X being devoted to birds. (Perhaps the best translation of this famous treatise is the French work by Littré.) Pliny acknowledges his indebtedness to Aristotle, but, so far as we know, he made many additions to and improvements upon the works of his great predecessor. ¶ Here ¶ An excellent review of the Birds of Pliny and Aristotle will be found in Evans' edition, with notes of Turner's Birds. ¶ Including the first (1469) printed edition the McGill libraries possess thirty printings of Pliny's Historia animalium.

¶ Yet another century passed before we find a third ancient authority of special prominence, viz. Aelian (fl. ca. 140 A.D.). Although an Italian, his works were written in Greek. He added very little to our knowledge of ancient zoology, although he refers to the writings of several other naturalists (whose works have not survived) showing that the study of animal life in the early centuries of our era had its share of devotees.

¶ In his description of animals whose parts were used as remedies Pedacius (Pedanius) Dioscorides (1st Cent.), a Greek physician, gives an account of many faunal forms in his celebrated six books of the Materia medica (editio princeps, A.P. Manutius, 1499), some editions of which furnish a complete catalogue of the vertebrates described (in the Osler library).

Pliny was born in North Italy at Como when 23 yrs. of age entered the army in North Germany, during his service several military treatises. ~~Dean~~ During this period he travelled about the Empire making notes and observations which he subsequently utilized in his various writings. He numbered the emperor Vespasian among his intimates but his real diversions do not seem to have interfered with his studies or his devotion to literature. Altogether he produced 160 vols. of MS. which he left to his nephew. Unfortunately the most of his works have been lost but for us fortunately the Historia Naturalis has survived. The author died in 77 A.D. killed by the noxious fumes given off by an eruption of Vesuvius and escaping into the Bay of Naples while he was commander of the Roman fleet at Misenum station

including its serials and periodicals).

(MS)

Aristotle made a rough classification of his birds into eight principal categories, his follower Pliny the Elder, relying entirely upon characters taken from the feet, divided them into three.

The McGill Libraries are fortunate in the possession of 20 editions of Aristotle and an early 14th. century manuscript of his zoological treatises.

Three centuries were to elapse before the second outstanding figure in zoological literature appeared. Caius Plinius Secundus (A.D. 23-79), known as the Elder or the Naturalist.

He was the author of numerous works, social, political and philosophic, among them a Historia naturalis in 37 books, most of Liber X being devoted to birds. Perhaps the best translation of this famous treatise is the French work by Littre. Pliny acknowledges his indebtedness to Aristotle but, so far as we know, he made many additions to and improvements upon the works of his great predecessor.

Pliny was born in North Italy at Como and when 23 years of age entered the Army in North Germany, and during his service wrote several military treatises. During this period he traveled about the Empire making notes and observations which he subsequently utilized in his various writings. He numbered the Emperor Vespasian among his intimates but his social diversions do not seem to

including its serials and periodicals),

have interfered with his studies or his devotion to literature. Altogether he produced 160 volumes of manuscript which he left to his nephew. Unfortunately most of his works have been lost but for us fortunately the Historia Naturalis has survived. The author died in 77 A.D., killed by the noxious fumes given off by an eruption of Vesuvius and escaping into the Bay of Naples while he was commander of the Roman fleet at that station.

An excellent review of the Birds of Pliny and Aristotle will be found in Evans' edition, with notes of Turner's Birds. Including the first (1469) printed edition the McGill libraries possess thirty printings of Pliny's Historia naturalis.

Yet another century passed before we find a third ancient authority of special prominence, viz. Aelian (fl. ca. 140 A.D.). Although an Italian, his works were written in Greek. He added very little to our knowledge of ancient zoology, although he refers to the writings of several other naturalists (whose works have not survived) showing that the study of animal life in the early centuries of our era had its share of devotees.

In his description of animals whose parts were used as remedies Pedacius (Pedanius) Dioscorides (1st. cent.), a Greek physician, gives an account of many faunal forms in his celebrated six books of the Materia medica (editio princeps, A.P.Manutius, 1499 in the Osler Library), some editions of which furnish a complete catalogue of the vertebrates.

including its serials and periodicals),

(MS)

Thomas Bewick was born at Ovingham, Northumberland, in 1753, the son of a farmer. He early evinced a love of nature and of drawing. When fourteen years of age he was apprenticed to the Newcastle engraver Beilby, whose partner he subsequently became. From 1779 onwards he produced woodcuts as illustrations for many books, his figures and tailpieces showing an immense advance over previous examples of wood engraving. He died in 1828, having acquired a reputation as the most effective, accurate and spirited wood engraver of his day.

including its serials and periodicals).—

Thomas Bewick was born at Cherryburn, Northumberland, in 1753, the son of a farmer. He early evinced a love of nature and of drawing. When fourteen years of age he was apprenticed to the Newcastle engraver Beilby, whose partner he subsequently became. From 1779 onwards he produced woodcuts as illustrations for many books, his figures and tailpieces showing an immense advance over previous examples of wood engraving. He died in 1828, having acquired a reputation as the most effective, accurate and spirited wood engraver of his day.

Thomas Bewick was born at Ovingham, Northumberland, in 1753, ~~the~~ son of a farmer. He early evinces a love of nature ~~of~~ and of drawing. ~~When~~ fourteen years of age he was apprenticed to the Newcastle engraver Beilby whose partner he subsequently became. From 1779 onwards he produced woodcuts as illustrations for many books, his tegnes and tail-pieces showing an immense advance over previous examples of wood engraving.

He died in 1828 ~~leaving a rep~~ having acquired a reputation as the most effective, ~~and charming~~ accurate and spirited wood engraver of his day.

including its serials and periodicals).

[To be pasted on the recto of the first blank page.]

This volume is presented, with the Compliments of the BLACKER LIBRARY OF ZOOLOGY, McGill University, Montreal, Canada, to

in the hope that the recipient may be able to contribute in exchange books, periodicals, separates or tracts, to fill gaps in the scientific libraries of McGill University.

Exchanges are to be addressed to :-

THE LIBRARIAN,
BLACKER LIBRARY OF ZOOLOGY,
McGILL UNIVERSITY,
MONTREAL,
CANADA.

including its serials and periodicals).

[To be pasted on the recto of the first blank page.]

This volume is presented, with the Compliments of the

BLACKER LIBRARY OF ZOOLOGY, McGill University, Montreal,

Canada, to

In the hope that the recipient may be able to contribute

in exchange books, periodicals, separates or tracts, to

fill gaps in the scientific libraries of McGill University.

Exchanges are to be addressed to :-

THE LIBRARIAN,

BLACKER LIBRARY OF ZOOLOGY,

McGILL UNIVERSITY,

MONTREAL,

CANADA.

2 w Cpy ~~Book Ex Pl~~

1 original
2 copies Retype

[To be pasted on the recto of the first blank page]

This volume is presented, ~~with~~ with the compliments of the Blacker Library of Zoology, McGill University, Montreal Canada, to

[space]

in the hope that the recipient may be able

to contribute in exchange (books, periodicals, separates or tracts, ~~or books~~ to

fill gaps in the scientific libraries of McGill University.

Exchanges ~~and~~ are to be addressed & to:—

The Librarian
Blacker Library of Zoology
McGill University
Montreal
Canada

Caps.

including its serials and periodicals),—

PREFACE.

After nearly six years of effort on the part of the Officials of the Libraries and Zoological Departments of McGill University the Compiler and Editor of the present treatise has prepared for the press a couple of volumes that are intended to assist students of vertebrate zoology and its bibliography as well as University and other librarians, in securing a fair knowledge of an important branch of natural science. Although the parties to the present compilation are not altogether satisfied with the work - which is necessarily an incomplete presentation of the subject - it is hoped that it may serve as a sort of stop-gap until other hands have written and published a complete study and evaluation of all vertebrate literature - a consummation devoutly to be wished.

As will be seen from the Table of Contents the present compilation is divided into three distinct and yet closely related sections. Section A reviews the literature of vertebrate zoology, so far as it is represented in McGill libraries, from the earliest times to the year 1930.

Section B furnishes a convenient, short-title index of the same literature (including its serials and periodicals), arranged geographically and in chronologic order, so that the student or librarian may recognise and locate in a few minutes any ordinary treatuse or periodical and many of the rare titles of zoological importance. Suppose, for example, that the book desired be a recent work on the vertebrate animals of Southern Mexico. The major headings, General Works. Middle America are soon found and casting one's eye towards the end of the list the date and name "1908 - Gadow, Hans" is at once perceived. Further information about the book, its whereabouts, etc. are easily obtained by consulting the appended Catalogue or the Catalogue of the British Museum (Nat. Hist.).

Section C, the largest of the three, is the (partially) annotated Catalogue of the printed books, periodicals, tracetates, original drawings, manuscripts, etc. in the Blacker and other zoological collections of McGill, towhich has been added a few titles of importance "on order" but not yet acquired at the date of going to press. These constant acquisitions also embrace many titles not referred to in this treatise.

cluding its serials and periodicals)

Section B furnishes a convenient, short-title index of the rare literature (including its serials and periodicals), arranged geographically and in chronologic order, so that the student or librarian may recognize and locate in a few minutes any ordinary treatise or periodical and many of the rare titles of zoological importance. Suppose, for example, that the book desired be a recent work on the vertebrate animals of Southern Mexico. The major headings, General Works, Middle America are soon found and casting one's eye towards the end of the list the date and name "1908 - Gadow, Hans" is at once perceived. Further information about the book, its whereabouts, etc. are easily obtained by consulting the appended Catalogue or the Catalogue of the British Museum (Nat. Hist.).

Section C, the largest of the three, is the (partially) annotated Catalogue of the printed books, periodicals, treatises, original drawings, manuscripts, etc. in the Blaauw and other zoological collections of Utrecht, to which has been added a few titles of importance "on order" but not yet acquired at the date of going to press. These constant acquisitions also embrace many titles not referred to in this treatise.

It will from the foregoing description be evident that the schemata of the present volume involves - indeed adopts - the principle of repetition; in the text to follow the Compiler occasionally and deliberately repeats not only the name of an author but the titles of his writings and even an account of his career when and where he thinks it desirable to fix important facts in the mind of the student.

including its serials and periodicals)

original
+ 2 Cyclostyle

012

MS

PREFACE

—·—

~~For~~ nearly six years of effort on the part of ~~the Compiler~~ ~~of this treatise, loyally assisted~~ by the Officials of the ~~the~~ Libraries, and Zoological Departments of McGill University the Compiler and Editor of the present treatise ~~has~~ has prepared for the press a couple of volumes that ~~Vertebrata Zoographica that it is to~~ are intended to assist students of vertebrate Zoology and its bibliography as well as University librarians, and other ~~to those~~ (in securing) a fair literary knowledge of an important branch of natural science. ~~Most of~~ (although) the parties to the present compilation are not altogether satisfied with the work — which is necessarily an incomplete presentation of the subject — ~~but in view~~ It is hoped that it may ~~be~~ serve as a sort of stop-gap until other hands have written and published a complete study and evaluation of ~~the whole range of~~ vertebrate literature — a consummation devoutly to be wished.

As will be seen from the Table of Contents the present ~~publication~~ is divided into three distinct and yet closely related sections. Section A reviews the literature of vertebrate Zoology, ~~so~~ for as it is represented in the McGill libraries, from the earliest times to the ~~end of~~ year 1930. Section B furnishes a ~~register~~ convenient, short-title index of the same literature (excluding its serials and periodicals) —

ranged geographically and in chronologic order, so that the
ident or librarian may ~~locate and~~ reacquire and locate
~~find~~ in a few minutes any ~~a~~ titles
ordinary treatise or periodical and many (of the) rare ~~items~~
of zoological importance. ~~For example~~ Suppose, for example, that
a recent ~~publication~~ work on the ~~fauna~~ vertebrate animals of Southern Mexico. The
ajor headings, General works. Middle America, are soon
ound and ~~running~~ casting one's eye towards the end of
the ~~list~~ catalog list the date and name "1908. Gadow, Hans"
at once perceived. ~~The~~ Further information about the
ork, ~~and~~ its whereabouts etc are easily obtained by consulting
the appended Catalogue of the Catalogue of the British
Museum (Nat. Hist.). ¶ Section C., the largest of the
ree, is the (partially) annotated Catalogue of the
~~filled~~ books, periodicals, tractates, original drawings,
manuscripts etc in the Blacker and other zoological
collections of McGill, to which has been added a few
titles of importance "on order" but not yet acquired at
~~received~~ many titles not referred to in this treatise.
~~the~~ constant acquisitions also embrace
the date of going to press. ¶ It will from the foregoing description
be evident that
the schemata of the present volume involves ~~the~~ indeed adopts
the ~~principle~~ principle of repetition; ~~Furthermore, it will be noticed~~
~~that~~ in the text to follow the Compiler (occasionally ~~frequently~~ and) deliberately repeats not only the

name of an author but the titles of his writings and even an account of his career when and where he thinks it desirable to fix important facts in the mind of the student.

TABLE OF CONTENTS.

Page

Preface .. ..

A. INTRODUCTION TO THE LITERATURE OF VERTEBRATE ZOOLOGY ..

Chapter I. The Beginnings of Zoological Records. Early Greek, Roman and Oriental Zoologists - The Earliest Medieval Writers on Vertebrate Zoology .. ..

Chapter II. Medieval Writers on Zoology and their Immediate Successors .. ..

Chapter III. The Renaissance and its Effect on the Records of Zoological Science. Publications of Natural History Societies and Museums throughout the World. Some Sixteenth and Seventeenth Century Writers on Vertebrate Zoology .. ..

Chapter IV. The Literature of Comparative Zoology. The Systematic Classification of Vertebrates - Darwinism, its Literature, its Advocates and its Critics .. .. ..

TABLE OF CONTENTS.

Preface .. .. Page

A. INTRODUCTION TO THE LITERATURE OF VERTEBRATE ZOOLOGY ..

Chapter I. The Beginnings of Zoological Records.
Early Greek, Roman and Oriental Zoologists - The Earliest Medieval Writers on Vertebrate Zoology .. ..

Chapter II. Medieval Writers on Zoology and their Immediate Successors .. ..

Chapter III. The Renaissance and its Effect on the Records of Zoological Science. Publications of Natural History Societies and Museums throughout the World. Some Sixteenth and Seventeenth Century Writers on Vertebrate Zoology .. ..

Chapter IV. The Literature of Comparative Zoology. The Systematic Classification of Vertebrates - Darwinism, its Literature, its Advocates and its Critics .. .. ..

Page

Chapter V. Travelogues of Explorers.- Reports of Voyages and Scientific Expeditions containing Descriptions of Vertebrates.- Journeys of Naturalists Round the World.- Government and Private Surveys and Explorations .. ..

Chapter VI. Forerunners, Contemporaries, Followers and Successors of Linnaeus.- A Short Account of Linnean Literature.- Faunal Classification and Nomenclature .. ..

Chapter VII. Some Fundamental Titles in the Literature of Modern Vertebrate Zoology. Hand-Colored Atlases and their Makers .. .. ..

Chapter VIII. From Natural Philosophy to Modern Biology. The Literature of Vertebrate Zoology from 1750 to 1850 A.D. .. ..

Chapter IX. Some Important Zoological Treatises and Serials published during the Nineteenth Century. Monographs on Local Fauna. Textbooks on Zoology. Reports of Explorations and Surveys. The Literature of Vertebrate Bionomics .. ..

Page

Chapter V. Travellers as Explorers.- Ramsts of Voyages and Scientific Expeditions containing Descriptions of Vertebrates.- Journeys of Naturalists Round the World.- Government and Private Surveys and Explorations .. ..

Chapter VI. Forerunners, Contemporaries, Followers and Successors of Linnæus.- A Short Account of Linnean Literature.- Faunal Classification and Nomenclature .. ..

Chapter VII. Some Fundamental Titles in the Literature of Modern Vertebrate Zoology. Hand-Coloured Atlases and their Makers .. .. ..

Chapter VIII. From Natural Philosophy to Modern Biology. The Literature of Vertebrate Zoology from 1750 to 1850 A.D. .. ..

Chapter IX. Some Important Zoological Treatises and Serials published during the Nineteenth Century. Monographs on Local Faunæ. Text-books on Zoology. Reports of Explorations and Surveys. The Literature of Vertebrate Bionomics .. ..

Page

Chapter X. Some Important Treatises published during the Nineteenth Century, continued. Monographs on Local Fauna. Text-books on Vertebrate Zoology. The Literature on Vertebrate Bionomics. .. ..

Chapter XI. (I) Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries ..

Chapter XII. (II) Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries

Chapter XIII. (III) Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries

Chapter XIV. The Literature of Zoogeography. Vertebrate Ecology. Vertebrate Paleontology. Animal Psychology. Zoological Gardens, Museums and Stations .. ..

Chapter XV. Important Treatises on Ichthyology from the Earliest Times to the Present .. ..

Page

Chapter X. Some Important Treatises published during the Nineteenth Century, continued. Monographs on Local Fauna. Text-books on Vertebrate Zoology. The Literature on Vertebrate Bionomics .. ..

Chapter XI. (I) Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries ..

Chapter XII. (II) Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries

Chapter XIII. (III) Some Important Treatises and Monographs on Ornithology and Mammalogy published during the Nineteenth and Twentieth Centuries

Chapter XIV. The Literature of Zoogeography. Vertebrate Zoology. Vertebrate Palaeontology. Animal Psychology. Zoological Gardens, Museums and Stations .. ..

Chapter XV. Important Treatises on Zoology from the Earliest Times to the Present .. ..

Page.

Chapter XVI. Selected Titles from the Literature of Herpetology and Amphibiology .. ..

Chapter XVII. Oriental Literature on Vertebrate Zoology. Codices, Printed Treatises and Lithograms in Persian, Arabic and other Islamic Languages. Sanskrit and Sinhalese Writings. Chinese and Japanese Literature on Zoology.

Chapter XVIII. Periodicals and Serials on Vertebrate Zoology .. ..

Chapter XIX. Unique and Rare Printed Books, Manuscripts and Drawings in the Zoological Literature of McGill University .. ..

INDEX INDICUM. (Students and Librarians Index) ..

B. STUDENT'S AND LIBRARIAN'S READY INDEX TO SHORT AUTHOR-TITLES ON VERTEBRATE ZOOLOGY ARRANGED GEOGRAPHICALLY AND IN CHRONOLOGIC ORDER .. ..

C. A PARTIALLY ANNOTATED CATALOGUE OF THE TITLES ON VERTEBRATE ZOOLOGY IN THE LIBRARIES OF McGILL UNIVERSITY

Chapter XVI. Selected Titles from the Literature of Herpetology and Amphibiology .. ..

Chapter XVII. Oriental Literature on Vertebrate Zoology. Cuttings, Printed Treatises and Lithograms in Persian, Arabic and other Islamic Languages. Sanskrit and Shaleless Writings. Chinese and Japanese Literature on Zoology.

Chapter XVIII. Periodicals and Serials on Vertebrate Zoology .. ..

Chapter XIX. Unique and Rare Printed Books, Manuscripts and Drawings in the Zoological Literature of McGill University .. ..

INDEX-DIRECTORY. (Students and Librarians Index) ..

B. STUDENT'S AND LIBRARIAN'S BRAIN INDEX TO SHORT AUTHOR-TITLES ON VERTEBRATE ZOOLOGY ARRANGED GEOGRAPHICALLY AND IN CHRONOLOGIC ORDER .. ..

C. A PARTIALLY ANNOTATED CATALOGUE OF THE TITLES ON VERTEBRATE ZOOLOGY IN THE LIBRARIES OF McGILL UNIVERSITY

Introduction

ORIGINAL MANUSCRIPT

(Typed).

CHAPTER III.

46 - 57

Gutenberg-

ORIGINAL MANUSCRIPT

(Ph-1).

The spirit of these institutions is well illustrated by the motto of the Royal Society, "Nullius in verba".

The rules of the last named ~~newly constituted~~ society insured the collection of carefully noted ~~[illegible]~~ phenomena only and the critical investigation of all new or remarkable observations. As Lankester ~~observes~~

~~(Here marked excerpt. Encyclop. Britannica Vol.XXV.p801.1. "Under the influence, etc.)~~

As Lankester says "Under the influence of the touchstone of strict inquiry thus set on foot by the Royal Society, the marvels of witchcraft, sympathetic powders and other relics of medieval superstition disappeared like mist before the sun."

CHAPTER III.

44 - 59

f individual writers on natural history during the renaissance several
ave already been mentioned. To these may be added more than one
talian, among them Ferrante Imperato (1550-1625) whose Dell'Historia
Naturale, Naples, 1599, dealt with the flora, fauna and geology in a
whose 28 books on the subject
rather original fashion, and went through several ~~editions~~ subsequent in 1672
editions. Another early Italian naturalist, Ippolyto Salviani wrote
work on aquatic animals of 256 ~~pages~~ folio leaves illustrated by
83 plates.

(1648)
till later, Joannes de Laet (1593-1649) ~~wrote~~ published a disquisition on
G. Marcgrave's and G. Piso's works, discussing the fauna and other natural
products of Brazil.

oth the Osler and the Blacker libraries have several titles headed by
1526-1609,
e name of that voluminous French writer Chas. de Lécluse (or Clusius),
~~name is~~ writings, translated into several European tongues,
ought to be familiar to the student.

¶ Another indirect result of the early foundation of scientific institutions was a race of investigators whose labors furthered greatly the onward progress of zoology. During the latter part of the 18th. century this evolution in literature culminated in ~~arose~~ Linnaeus, the father of systematic biology, and in ~~while~~ such men as John Hunter, the famous surgeon, ~~and that was also~~ keeped to founder of modern comparative anatomy, a study that he ~~build~~ on a firm foundation.

Of prelinnean names in systematic zoology, the most prominent is that of John Ray (1628-1705) or Wray, (as he wrote himself until 1670), regarded by many as the ~~father~~ founder of English natural history. Besides editing the works of his friend and pupil Francis Willughby, he contributed much of value to the literature of zoology; indeed his ~~contributions~~ writings greatly lessened the extensive labors of the great Linnaeus. He it was who defined the term "species", until his day loosely applied in the classification of animal life. In ~~defining~~ naming the larger groups he made unwonted use of anatomical characters and it is, perhaps, not incorrect to speak of him as the father of scientific Zoology.

Another indirect result of the early foundation of scientific institutions was a race of investigators whose labors furthered greatly the onward progress of zoology. During the latter part of the 18th. century this evolution in literature culminated in ~~arose~~ Linnaeus, the father of systematic biology, while and in such men as John Hunter, the famous surgeon, ~~that was also the~~ and founder of modern comparative anatomy, a study that he helped to ~~build~~ on a firm foundation.

Another indirect result of the early foundation of
scientific institutions was a race of investigators whose
labors furthered greatly the onward progress of zoology.
During the latter part of the 18th. century there flourished
_____, the father of systematic biology, whose work
was as John Hunter, the famous surgeon, _____ founder
of modern comparative anatomy, a study that he built on a true
foundation.

Of prehuman human in systematic zoology, the most
prominent is that of John Ray (1628-1705)-----or Rey (as
he wrote himself until 1670), regarded by many as the
of English natural history. Besides editing the works of his
friend and pupil Willughby, contributed much of value to the
literature of zoology; indeed his _____greatly
increased the extensive labors of the great Linnaeus. He it
was who defined the term "species", until his day loosely
applied in the classification of animal life. In _____
the larger groups he made unwonted use of anatomical characters
and it is, perhaps, not incorrect to speak of him as the father
of _____.

Another important zoologist flourished about this time - Ulysses Aldrovandus of Bologna, born in 1522. The McGill libraries have complete sets of his ~~several~~ works on animal life, that cover all the zoological classes.

voluminous treatises

Annotations of these furnish in the Catalogue an appreciation of their great value in the history of biology.

~~Black Notley.~~ A Ray was sent to Cambridge where, among other subjects, he studied natural history and eventually held University offices. Obliged to leave college on account of religious differences he joined (~~a former pupil~~ ~~Francis~~ Willughby, member of a rich and noble family, who enabled him to devote himself entirely to scientific studies.

The two friends (the older man addressed the younger as "ami~~s~~cus et Maecenas suus") went together on a two years journey through Europe, travels that are recorded in Observations topographical, moral and physiological, Lond. 1673, in which Ray ~~he~~ printed his famous Catalogue of Plants not native of England. Returning to England laden with collections of various kinds they settled down in Willughby's country house to work on the collected material; but this scheme was interrupted by the death of the patron who, however, made Ray one of his executors and ~~instead~~ appointed him guardian of his two sons.

Continued from Page 12

~~one of his executors and appointed him guardian of his two sons.~~

Ray finally moved to the cottage left him by his parents where for over twenty years he continued his numerous researches the results of which have greatly affected the progress of science. Although he made botany his chief study, his literary work included all the divisions of zoology, numerous sermons, religious essays, fore-lore, etc. Ray's classification of vertebrates is not really as comprehensive as that he made of plants; indeed it was Willughby who undertook the preparation of the treatises on zoology. After the premature death of the latter his collaborator published, in his own name, a book on fishes and another on birds that were probably the combined work of both writers. Ray also wrote treatises on quadrupeds, reptiles and insects, the first two being his most important contribution to vertebrate biology. All of the aforementioned titles will be found in this Catalogue.

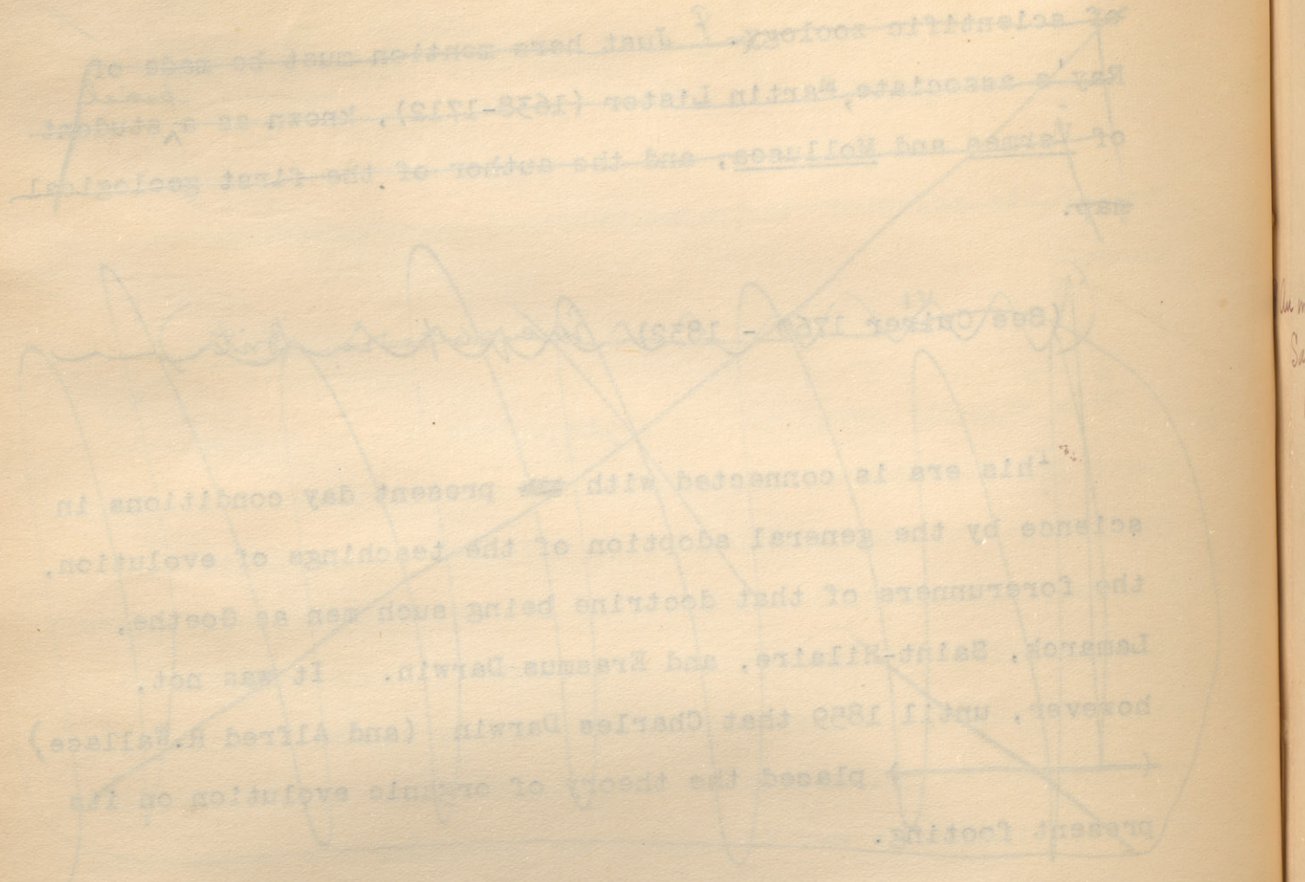
~~of scientific zoology.~~ ~~Just here mention must be made of Ray's associate, Martin Lister (1638-1712), known as a special student of Vermes and Mollusca, and the author of the first geological map.~~

~~(See Cuvier 1769 - 1832) Recapitulation Brit~~

This era is connected with the present day conditions in science by the general adoption of the teachings of evolution, the forerunners of that doctrine being such men as Goethe, Lamarck, Saint-Hilaire, and Erasmus Darwin. It was not, however, until 1859 that Charles Darwin (and Alfred R. Wallace) placed the theory of organic evolution on its present footing.

The progress of zoological observation from Ray to Linnaeus was markd by the vigorous labors of many scientific investigators, among them Woodward, the paleontologist; Hans Sloane and Rumphius, collectors; Alex. Monro and Shaw (1692-1751), travellers; Réaumur, the entomologist and Peyssonel, Linck and Lhwyd, students of fishes.

classic treatise on Zoology was the Onomasticon Zoicon of Walter Charleton, the first edition issued in 1668, followed by several others before 1680. An earlier (British) "local faunist" was Joshua Childrey who wrote in 1661 Britannia Baconica, or Natural rarities as they are found in every Shire.



¶ Of the bountiful literature of this period ~~xx~~ the Compiler can mention ~~xxx~~ only a few titles. 49.

¶ La Caccia dell' Archobugio (Bologna, 1672) of Vita Bonfadini is an illustrated 12mo of 96 pages that not only gives directions for hunting various animals with the arquebus but also describes quite carefully the hunted birds and mammals.

An important early contribution to comparative anatomy was Samuel Collins' A Systeme --- treating of the Body of Man, Beasts, Birds, Fish etc. 2 vols., illustrated, London, 1685.

¶ The Icthyographia (London, 1685) of Francis Willoughby, folio, with many plates of fishes and an elaborate title page, forms a most important atlas of piscine literature which should be in every zoological library. It has also a decidedly human interest, the full page plates being dedicated to various well-known members of the Royal Society, among them Christopher Wren and Samuel Pepys, the diarist.

¶ Johannes Johnstonus, or plain John Jonston, although born abroad in 1603, was of British descent, and was a student at St. Andrews. After many years of research at various continental universities he returned to England, but again set out on his travels, graduated as a physician, and finally settled in Silesia. A brief notice is given in this Catalogue of his great zoological encyclopedia, alphabetically arranged and a rival of Gessner's heavy tomes. This is the Thaumatographia naturalis in decem classes distincta, 1633, in which he describes the marvels of the natural world. Five of the six books are devoted to man and all the other animals. We may without hesitation bracket this immense work with the treatises of Aldrovandus and Gesner, and note that successive editions were translated in full into Dutch and (the Birds) into French. The artistic plates also display, as a rule, German synonyms; and the text matter shows generally a decided scientific advance over previous writings on the various subjects - the fishes in particular.

¶ Because he occupied a prominent place on ~~To complete~~ the roster of seventeenth century faunal encyclopedias one must speak of Edward Topsell, whose Historie of Foure-footed Beasts, 1607, and the Historie of Serpents, 1607, have already been noted. Most [illegible] editions of these cyclopedias are listed in our Catalogue.

~~Special~~ Attention should also be given to Giovanni Germano (51.)

~~Germano, Giovanni. Ms. 1625.~~ who in 1625 wrote a

Breve e sustiale trattato --- delli piu principali animali --- con il corpo humano etc, illustrated with 12 copperpl. of osteologic subjects, monkey, dog, cat, several birds, bat, man et al. ~~Napoli. Sm. folio. B.M. Cat. p. 1161. 229.~~

The writer was a Provençal Minorite friar, author of several works on anatomy and surgery. The present volume is very rare and among the earliest works on comparative zoology.

---

much later, of course, (but more complete, bearing on precisely the same subject is ~~M~~. Berthelot's ~~Migration~~ two-volume Oiseaux voyageurs et Poissons de Passage, étude comparée d'organisme, 1875-6.

¶ About this time there appeared two rare works, H.v.Hoevel's Neuwer wunderbarlicher Thiegarten, etc. Frankfurt a.M., 1601, and Johann Sperling's Zoologia physica, 1661. The latter, edited and published after the author's death by G.G. Kirchmaier, exhibits original thought and is an effort to furnish a more rational classification of animals than had hitherto been attempted.

In 1595 the pastor H.H.Frey published his Θηριοβιβλιον: Biblisch Thierbuch, etc. now a very rare book, in which he shows us that God has given us animals for other purposes than food, sport and game; for companionship, as teachers of morality, and so on. It was a new dogma and one feels like commending its perusal to a certain class of Christians, "Sportsmen" of our own day, many of whom would be the better of a book on the rights of animals.

We find an extension of the teachings of Frey in the treatise of Wolfgang Franz (Historia animalium sacra, 1612) that has been reprinted and translated many times. An English edition appeared in London, 1670. In addition to his recognition of the habits and domestic life of our animal brothers he proposes a rational system of their classification. As for "dracones" he says, with much spirit and truth, "the principal dragon is the devil."

A more complete sacred natural history is the famous Hierozoikon of Samuel Bochart, London, 1663, several subsequent editions of which were published elsewhere. An echo of Such these two works is a study of the animals in Noah's ark (Arca Noë, Amsteld., 1675) by Athanasius Kicherius, albeit of little value from the scientific viewpoint.

The encyclopedic period produced a number of other treatises, only a few of which will be mentioned here. One of these is often quoted - Daniel Sennert's (Epitome naturalis scientiae, 1618. This author was a professor of medicine in Wittenberg, and attempted a crude classification of animal life. Earlier but not less important is the Exotericarum exercitationum Liber XV, Paris, 1557 of J.C.Scaliger, who notes many original observations of animal habits. Of some slight value, also, is the rare Historia ae of Nieremberg, 1635, divided into 16 "books", after the ancient style.

Illustrations of zoological works by copper, steel and wood engraving soon became common enough, and during this period numerous examples appeared of designs by artists famous in other departments of art - Nicolas de Bruyn, C.J.Vischer,

Adrian Collaert (or Collard), Adrian Bloemart, Saint Lucas, Albert Flamen and Antonio Tempesta, most of whom are represented ~~by~~ in titles in the McGill libraries.

Reference has several times been made ~~to the intimate reference connection between early works~~ to early zoological observations found in treatises on medical zoology, i.e. animal products as remedial agents in human therapeutics. Quite frequently ~~the observations on~~ discoveries in faunal and floral life made by early voyagers to the New World were confined to this category, incidentally noting facts of some value in comparative zoology and other sections of biology. ~~See Osler Catalog~~ Among these ~~mentioned were~~ are the books published by Clusius (L'Encluse); Oviedo (Summario ... dell' India occidentali, 1535); José d'Acosta (Histoire naturelle des Indiens, frequently translated and published, first ed. 1590, Seville); Francesco Hernandez, physician to Philip of Spain, author of very important and well-known Americana, treatises on Central American flora and fauna, 1628-1651; N.A. Recchi, another physician whose contributions to zoological history are enrolled in this Catalogue; the list ending with the works of still another physician, Guil. Pison, whose Historia naturalis Brasiliae and other treatises on the same subject (1648-1658) are familiar to ~~naturalist~~ most students of natural history.

r the Abbé Molina wrote his classic study of the
Natural History of Chile, the first edition of which was
ublished at Bologna in 1782.

ORNITHOLOGY FROM THE 16th. CENTURY TO THE PRESENT DAY.

¶ This may be an appropriate place to say something about the progress of ornithology and its literature from the sixteenth to the nineteenth century. The same year (1555) that saw the appearance of Gesner's Historia Animalium, including a discourse on birds, witnessed the publication of an illustrated Histiore de la nature des Oyseaux, by Pierre Belon. This writer's descriptions of birds were distinguished chiefly by an unusual attention to their internal structure as well as to their external appearances. In this connection he compared avian with human structures and thus became one of the first of the comparative anatomists. Belon's works did not slavishly follow tradition, so that he avoided much of the medieval absurdity expressed in most earlier and many later publications.

He adopted also a definite taxonomy, portions of which survive to the present day. ¶ Newton (Dict. of Birds, p.6.) records the next important name on our list, that of Volcher Coiter who published at Nurnberg in 1573 and

58

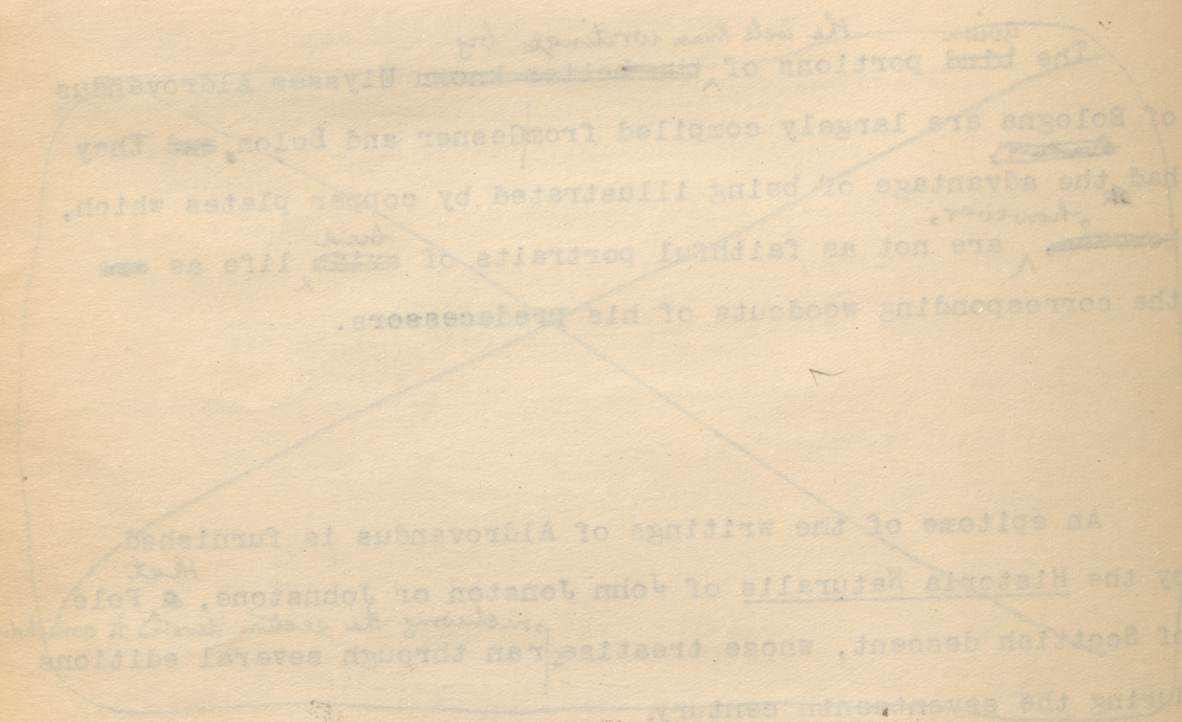
1575 two tractates, embellished with well-executed cuts, in which the histology of bird structure is quite well described.

The avian portions of the well known writings by Ulysses Aldrovandus of Bologna are largely compiled from Gesner and Belon, and they had the advantage of being illustrated by copper plates which, however, are not as faithful portraits of bird life as the corresponding woodcuts of his predecessors.

An epitome of the writings of Aldrovandus is furnished by the Historia Naturalis of John Jonston or Johnstone, a Pole of Scottish descent, whose treatises, including the section devoted to ornithology, ran through several editions during the seventeenth century.

A physician named Caspar Schwenkfeld published at [illegible] gnitz in 1603, a volume called Theriotropheum Silesiae in which over 100 birds are described so accurately that they are readily identified.

was in 1680-1 that Giovanni Borelli's de motu animalium appeared. This first edition (in the Blacker ary) is extremely rare, no copy being listed in the British Museum alogue (Nat. Hist.)



was not until 1666 that Christopher Merrett printed the first edition of his
Pinax rerum naturalium Britannicarum, a work of importance as
it touched many sides of natural history.

In 1684 Sir Robert Sibbald published his Scotia illustrata, in
which many of the fauna and flora of Scotland were depicted and
described.

Chap

8th & early ~~by~~ 18th Century works on Vertebrate Zoology ~~to~~

~~169~~ 46

First of all one notices

Ray's systematics ~~were~~ (as) a great advance on the classification schemata of his predecessors, (as ~~they~~ they, in their turn, lag) ~~although it is far~~ behind the biological system ~~of the modern animal and plant classification~~ inaugurated by the illustrious Linnaeus, of whom the writer has ~~hardly~~ several times spoken.

In 1707 ~~1718~~

Carl Linnaeus (or Linné) was born of educated but poor parents, his father, vicar of Stenbrohult, being a good botanist. A student at the Universities of Lund and Upsala he had a hard struggle to secure a bare existence and was often in dire want. Before graduation, however, such was his enthusiasm for science, he was himself allowed to give lectures in the University. That he might further advance he took up his residence in Holland where he studied medicine, soon took his doctor's degree and then moved to Leiden. There he was assisted in publishing his epoch-making Systema naturae which brought him immediate credit and fame. After traveling in Northern Europe for three years, during which time he published many treatises, he returned to Sweden where he made a bare livelihood by the practice of medicine. In 1741 he was made professor of botany at Upsala

CHAPTER IV.

18th & ~~19th~~ 19th century. Poyck.

and soon became not only the foremost teacher in the University, but a world-wide scientific leader, acknowledged and acclaimed everywhere. He was the recipient of many honors and was finally ennobled, taking the name of von Linné. His systematic treatises are, as everyone knows, the foundation on which modern biologic classification is built. Some ~~Many~~ ~~Most~~ of these very numerous ~~titles~~ can "epithetics", among them Pulteney's Memoirs of the great naturalist, 1805, are to be found in the Blacker and E.S.W. Libraries; and it may be added that a complete annotated bibliography of all Linnean literature is now in process of preparation by Dr. Soulsby the talented Librarian of Zoology in the (Natural History ~~House~~ Dept.) British Museum. For the advanced student a most useful book is C.D. Sherborn's Index to the generic and trivial names of Animals in the 10th - 12th editions of the Systema Naturae, 1899.

This is not the place to discuss the competency nor the weaknesses of the Linnean binomial classification of plants and animals; the Compiler simply repeats the most cogent objection to them, viz: that their merits are by no means uniform. The Linnean zoological ~~and his zoologic~~ classes (were) not ~~be~~ treated as successfully as the botanic system, probably because the writer knew more about flora than he did about fauna.

The pupils of Linnaeus, some of which were foreigners attracted by the fame and enthusiasm of the great teacher,

traveled abroad and made collections and observations independent of their instructor.

Among them mention may be made of those earlier observers who added anything worth while to the literature of zoology.

Peter Artedi, born in North Sweden, is more of a fellow worker than pupil, as he joined with the young Linnaeus at Upsala to study natural science, the one prefering botany, the other choosing zoology, especially ichthyology. While Artedi was preparing his Ichthyologia with the aid of his friend Linnaeus he came to a tragic end; he fell into a canal and was drowned towards the end of 1735. In 1738 his famous work on fishes was edited and published in Leiden by Linnaeus.

the French school of systematists and comparative anatomists one ust not overlook André Dumeril who, in addition to numerous other contributions ral history wrote a Zoologie analytique, ou méthode naturelle de Classification des ux, 1806 and Mémoires d'Anatomie comparée, 1807.

F. Hasselquist, an actual pupil of Linnaeus, traveled in the East and died (1752) in Smyrna. He gives the natural history of the countries visited in his Voyages and Travels in

the Levant, 1766. This work, popular in its day, has been several times translated. P. Löfling, beloved of his professor, after many adventures by land and sea, died (1757) in South America. The student list also included such well-known writers as Pehr Forskål (1732-1763), whose Descriptiones Animalium is among the zoological fundamentals; Per Kalm (1716-1779); Daniel Solander (who held a position at the British Museum, and died in London in 1782); J.C.Fabricius (1745-1808) and Carl Peter Thunberg. Of these the last-named roamed farthest afield, collected the most material and published the largest number of monographs. His Fauna Americae meridionalis, Uppsala, 1823, in three parts, of which he acted as editor, is a very important contribution to American zoology.

J. C. P. Erxleben's Mammalia as part of his Systema Regni Animalis per classes, ordines etc., 1777, must not be overlooked as an important document in the contest over nomenclature and systematics generally.

Because of its value as an early study of faunal life in the Moluccas the Compiler draws attention to a rare folio, G. E. Rumphius' D'Amboinsche raritekamer etc published in Amsterdam in 1705.

and traveller

One writer of ~~this period~~ the eighteenth century, Jacob Theodore Klein (1685-1759) demands special mention. His careful treatises (q.v.) on ~~the~~ floral and faunal subjects form an important contribution to the history of biology.

American systematist of some note, T. E. Bowdich, made an earlier early Analysis of Natural Classifications of Mammalia, Paris, 1821, dealing with both the Illiger & the Cuvier nomenclatures.

~~The truly great Carl Linnaeus ( ) was a physician,~~ the first professor of medicine (afterwards of natural history) in Upsala University, where he formed a new department in zoology and botany, treating these subjects in an entirely new and interesting manner, regardless of the traditions of the Middle Ages. Linnaeus taught zoology as a branch of knowledge to be investigated and studied for its own sake, quite apart from the classic utterances of ancient philosophers. The famous Systema Naturae ran through twelve editions during his life time, the editio princeps appearing in 1735, the twelfth in 1768.

~~Lankester aptly and briefly describes the author's position in the world of natural science :- "Apart from~~

~~(here Ency. Brit. pages 804.805.)~~

One of the early (and rare) Zoologia americana is J. R. Forster's Descriptiones Animalium, 1771, reprinted (with a preface by P. L. Sclater) by the Willughby Society in 1882.

William Swainson (1789–1855) was an active British naturalist. During the 1st half of the nineteenth century he wrote many monographs on zoological subjects especially on avian life in particular. Perhaps his most enduring contribution to vertebrate zoology was his Treatise on the geography and classification of Animals (1835), originally contributed to Lardner's Cabinet Cyclopaedia.

In 1850, A. White wrote a semi-popular history of the mammalia, in which stress was laid on classification and habits.

Of ~~the~~ eighteenth century zoologists in France Count Georges Louis Leclerc de Buffon, wealthy and well-born, was easily the most brilliant. He received a thorough education at home and, after making the grand tour, ~~of the continent~~, spent a year in London studying mathematics, physics and botany. In 1739 he was appointed keeper of the "King's Garden", now the Jardin des Plantes, ~~which~~ Under his influence this Jardin du Roi was greatly extended and became the centre of biological research in France. Buffon was made a count, a member of the French Academy and became a universal social and scientific success. In the beginning of 1749 the first part of his famous ~~fifteen volume~~ Histoire naturelle was published and he continued to work on it for the remainder of his life. In this monumental task he was greatly assisted by the anatomist Louis Daubenton (1716-1800.) The first edition was later followed by several supplementary volumes (Suites) and by many translations and editions of the treatise itself. ~~Most~~ Several of these are represented in this Catalogue and mirror the reputation of Buffon as a natural scientist, brilliant writer, and, in many departments of zoology, an original thinker. It will be noticed, however, in glancing at his contributions to literary biology that he ~~was able~~ seems unable com-

pletely to discuss ~~only~~ the subject of mammals. ~~These were~~ This caption in his Historiae was dealt with monographically by Daubenton and others, who added notes on their comparative anatomy.

Although that versatile prodigy, the Swiss-born Albrecht von Haller is best known as a physician, poet and physiologist, he made several contributions to pure zoology; among them a Historia naturalis ranarum, 1758, and a mass of observations on animals in his Bibliotheca anatomica, an annotated bibliography of all the literature in that scientific sphere to the date of its compilation. Osler said of him (Bibliotheca Osleriana, p.117) that he "is the greatest bibliographer in our ranks. Next to the Index-Catalogue of the Surgeon-General's Library, his works have been most helpful in the preparation of this catalogue. To learning and judgment he added that indispensible quality in a bibliographer, accuracy."

Charles Bonnet (1720-1793) was, like Haller, born in Switzerland. Although he devoted himself almost entirely to

insect biology, and is best known as the discoverer of parthogenesis (in the aphidae) he contributed somewhat to tebrate zoologic literature; e.g. in his Contemplation de la Nature (1769; 2nd. ed.) 2 vols. and in his Oeuvres d'histoire naturelle (1779-81) etc., 8 vols. 4to., published in Neuchatel.

Closely related to Bonnet but differing from him in some important respects was the Abbot, Lazzaro Spallanzi (1729-1799), born at Reggio. The Swiss naturalist translated the Italian scientist's Opere into French while Spallanzi published one of his early works with this title :- Fisica animale --- colla giunta di due scritti sullo stesso argomento del celebre Sig. Bonnet (1782). The Osler library has a full complement of the works of these two friends,

[illegible] references have been made to the zoological works of the famous zoologist, M. J. [illegible]isson (1723-1806), a rival of Linnaeus. The Compiler again draws the student's attention, at this juncture, to the two editions, 1756 and 1762, of his Regnum animale, published in parallel Latin and French columns, as among the fundamental books of reference. [illegible] later contributions to faunal classification there must be borne in mind L. J. Fitzinger's essays on the subject, among them his Neue Classification der Reptilien, Wien, 1826; Naturgeschichte der drei Reiche, 1862-4, in 8 vols; an unfinished Conspectus geographicus of which the Systema Ophidium appears in 1843 as the first fascicle.

Vert. 3 of 69
General

54

One may properly refer here to that systematist, Jacob T. faunal
Klein (1685-1759) whose numerous works on all the major faunal groups
are represented on the shelves of the McGill libraries. One
of the best of these is his criticism (1743) of the arrangement by Linnaeus
of his quadrupeds and amphibia in the Systema Naturae.

[J.M.]

'95-7 Bechstein published the first edition of his popular treatise on cage animals - including
mammals, fishes and amphibia. Not only have there been several editions of this
known published but it served as a source of supply for numerous popular
books on pet animals during several subsequent generations.

In 1731-8, E. Albin brought out A Natural History of Birds, in
three folio volumes, London, illustrated, and later in 1737 published
a book on English Song Birds which is now very rare, there being
no copy in the British Museum library.

~~178~~ 55

Among ~~Another~~ well-known ~~eighteenth century~~ writers on comparative biology, was Peter Simon Pallas (1741-1811). Although born in Berlin and educated as a physician in Germany most of his scientific work was done in Holland and Russia, in the latter country under the patronage of Catherine II. His contributions to biological literature deal in most part with zoology - especially with mammalogy. His Spicilegia zoologica, a series of monographs, describes a number of new species. An account of his Russian travels ~~and~~ as well as several other titles by this important zoologist are recorded in this Catalogue.

The Compiler has not the space required to do justice to a sketch of the life, activities and enduring influence exerted on scientific thought by that intellectual giant Johann Wolfgang Goethe (1749-1832). It would absorb several pages to evaluate properly his many contributions to biology. Born at Frankfurt-am-Main in 1749 of wealthy burgeois parents, he first practised law, and then became actively engaged in the political and literary life of the principality of Weimar. After a two years' residence in Italy he retired to devote the remainder of his long life to poetry and science. Of the

numerous titles (and the many editions and translations of them) perhaps the best selection of his biological writings is the two-volume edition of Schriften zur Naturwissenschaft (1905-07) with notes by Max Morris. These are excerpts from the 14 vols. of the celebrated Weimar publication, mostly on natural science.

A South German philosopher who devoted himself to natural history, whose fame spread throughout continental Europe, was Lorenz Oken or Ockenfuss (1779-1851) who after graduation as a doctor of medicine taught in several home universities. Finally (in 1832) he settled in Zürich for the remainder of his life where he carried on his chosen work. Oken is best known by the natural history periodical, Isis, which he published for many years. The articles in that magazine represent all phases of contempory opinion; in its columns problems were presented and prizes offered for their solution. Since its discontinuation the title "Isis" has been given several other periodicals, showing the sincere flattery of this form of imitation. Complete sets of this storehouse of information are becoming very rare; it was only after years of search that

the Compiler was able to complete the files in the Blacker Library.

In the same collection are Oken's Allgemeine Naturgeschichte für all Stände, 1833-43, with an atlas of 158 col. pl. and his Lehrbuch der Naturphilosophie, the edition of 1843. The former is a compilation of high order, the latter, by some regarded as the author's best work, reflects his peculiar notions about the Universe, its government, the source of animal life and so forth.

Every student of the history of systematic Zoology should consult J. B. Spix's Geschichte aller Systeme in der Zoologie, 1811, a scholarly account of the Science since the days of Aristotle.

Mention may here be made of Karl Gustav Carus (1789-1869) born in Saxony, court physician and(earlier in life) professor of comparative anatomy at Leipzig. In 1861 he summarized his rather eccentric notions about the relations of species to one another in his Natur und Idee. The whole animal system is arranged in circles, with protozoa at the periphery and homo sapiens in the centre — the Circular System.

The transition period that Nordenskiöld describes under the caption "from natural philosophy to modern biology", may be said to have occupied the first half of the nineteenth century. Prominent among the pioneers (and an early one) that contributed to its brilliant episodes was Erasmus Darwin (1731-1802), the grandfather of the illustrious Charles. He was a medical practitioner in Lichfield. He wrote many papers for the Royal Society but the treatise that made him most widely known (apart from his relationship to his famous descendant) and which was translatedinto several continental languages is his Zoonomia (1794), a peculiar but original thesis in which the author attempts to formulate the laws that govern the origin and progress of animal life.

Among the first of the comparative biologists in the modern sense may well be placed the versatile Étienne Geoffrey Saint-Hilaire (1772-1844). Born near Paris, he entered the priesthood, but, despite this handicap, was appointed professor of zoology by the Republican Government and at once showed himself to be, among other accomplishments, a brilliant anatomist. He accompanied Bonaparte to Egypt as zoologist and ~~(illegible)~~

contributed to the immense illustrated folios of the Description de l'Egypte ~~(q.v.)~~ (q.v.) in which are recorded the activities of the numerous scientific observers ~~of which he formed an important member~~ on the exploration staff of Napoleon.

Later he went, also under Napoleon's orders, to "collect" specimens from Portuguese museums to enrich the French State, much as his master was wont to "transfer" old masters from the galleries of Italy to the Louvre and similar collections. Saint-Hilaire's rivalry with Cuvier, in which Goethe supported the former, is well-known; it continued until Saint-Hilaire's death. His studies in comparative anatomy were mostly upon the osteology of vertebrates, ~~and~~ while his speculations as to the evolution of the larynx and ear in mammalia and birds based on actual dissection, are likewise well known.

was in 1777 that Francesco Cetti wrote his several monographs on the vertebrate zoology of Sardinia.

Although they exercised some influence on the progress of comparative anatomy the specific writings of Felix Vicq d'Azyr (n.1748) and of his teacher Condillac (1715-1780) can have only a bare mention here.

student of Linnaeus and his classification was George Edwards and elsewhere in his Catalogue of Birds, Beasts, Fishes etc., 1776, discusses the systematic nomenclature of the listed fauna.

~~of the~~ A minor but important systematic item of early date is the Avium Genera of Moehring, 1752.

Among the numerous English followers of Linnaeus was, the noted naturalist, William Turton (1762-1835) who not only translated the Systema Naturae but compiled a treatise on British Fauna (1807) arranged according to the Linnean System.

Johann Friedrich Blumenbach (1752-1840) requires a few lines since, in addition to his studies in anthropology (Anthropological Treatises, etc. trans. 1865) he made valuable observations on the comparative anatomy of the higher apes and other animals; and his soubriquet of "Magister Germaniae" was in part given him because of his introduction into the Fatherland of this very study of comparative anatomy - several years before Cuvier introduced it into France.

The Chevalier de Lamarck (whose family name was de Monet) (1744-1825) cadet of a poor but noble family of Picardy, eventually rose to fame and wide influence in the scientific world. Of the many literary contributions he made to biology we are mostly interested in his Philosophie Zoologique, 1809, the 2nd. ed. of which was published in 1830, and his earlier work, Recherches sur l'organization des corps vivants, 1802. In the former treatise he develops a theory of animal evolution - the development of life in nature - which suggests the coming of Darwinism.

Baron Georges L.C.F.D.Cuvier (1769-1832) of French Huguenot extraction, was born in the Duchy of Württemberg. Although very poor he applied himself with absorbing diligence to his collegiate studies and rose during the Napoleonic era and after to ~~attain~~ occupy the most influential position in the world of natural science of any man of his country. His treatises on comparative anatomy, in the preparation of which he was greatly assisted by Dumeril (q.v.), and his essays on classification of the animal kingdom are too well-known to students of natural history to require extended comment. [redacted] Règne animal, 1817, passed through ~~many~~ numerous editions and translations into all the European scientific tongues, many of which are shelved in the McGill libraries.

One must not pass over, either, his studies in paleontology. His celebrated work, Recherches sur les ossemens, 1812, is a work that ushered in the modern study of that science. The most important titles of Cuvier's zoological contributions are listed in this Catalogue.

Among the followers and successors of Cuvier, especially in the realm of comparative anatomy, was Carl Asmund Rudolphi (1771-1832) who, apart from his researches on parasites and his

large work on general physiology (never completed), gave some attention to vertebrates, their cerebral and digestive organs, etc.

Even better known than Rudolphi was Johann Friedrich Meckel (1781-1833) whose studies in comparative anatmmy are set forth in his System der vergleichenden Anatomie. He also developed a theory of evolution worthy to be mentioned with that of Lamarck, Wallace and Darwin.

Among the early nineteenth century exponents of comparative biology in France may be mentioned Henri Marie Ducrotay de Blainville (1777-1850). A native of Normandy and an enthusiastic pupil of Cuvier, he developed into a brilliant writer and teacher of the biologic sciences. He is best known in this connection by his Osteographie (on fossil vertebrates) and his De l'organisation des Animaux.

The science of embryology in the modern sense is a late development of scientific research. One of the earlier devotees of this branch of biology was Karl Ernst von Baer (1792-1876),

a natice of Esthonia. A good account of this erudite teacher and of his life and writings is given by Ludwig Stieda (q.v.). Baer's (Ueber Entwickelungsgeschichte der Tiere, 1827 and De ovi mammalium genesi, 1827 and 1837 are well-known to advanced students. In these treatises Baer considers at length the development of the ovum in vertebrates.

Baer's successor at the University of Königsberg was Martin Heinrich Rathke (1793-1860), born in Dantzig. In his tractate, Ueber die ruckschreitende Metamorphose he records the results of his researches in comparative embryology. He also wrote quite a few monographs on the vertebrates and on marine zoology.

Another pioneer and associate of von Baer in embryology was Heinrich Christian Pander (1794-1865). He was born at Riga of wealthy parents and was able to give his whole attention to his favorite study. His treatise, Vergleichende Osteologie, did not attract as much attention as his purely embryologic works.

In 1822 the Rev. Dr. John Fleming wrote a Philosophy of Zoology, giving his views on the classification, structure etc. of Animals that had considerable merit. Like it was who subsequently (1828) published a fair history of British Animals in one large 8vo. volume. In 1827 Edward Griffith, ~~under the~~ a copyist of Baron Cuvier, wrote a respectable Animal Kingdom in 16 volumes that shows ~~some~~ signs of originality thought.

(1842-1918)

A well-known ~~quite recent~~ systematist, E. L. Trouessart, has written several annotated lists of mammals and birds, among them his Catalogus mammalium, 1898-1905, and his Catalogue des Oiseaux d'Europe, 1912. Other systematists have worked at the same ~~done the same~~ among them C. D. Sherborn (q.v.), and C. O. Waterhouse. The latter first published his Index Zoologicus in 1902, as part of the indispensable Zoological Record.

Johannes Peter Müller, a pioneer in experimental physiology and one of the most popular and brilliant of German biologists, was born the son of a shoemaker at Coblenz in 1801. He took his degree in medicine and in 1830 was appointed professor of chemistry at Bonn, a position he held for nearly 30 years. His work in oceanic zoology and his researches in comparative histology interest us most especially as he (late in life) was engaged almost exclusively with (the lower) vertebrates. He published a well-known monograph on the lancet fish (or amphioxus?), and spent over nine years on the skeleton, nerves and muscle system of the Mixinoidei - those borderland vertebrae a study of whose minute anatomy throws so much light on the structural development in the higher forms.

Of the many earlier nineteenth century histologists, who researches became so much more efficient by the employment of modern laboratory methods, ~~that flourished during the nineteenth century~~ few devoted themselves largely to pure zoology. In passing, mention may be made of one of these - Theodor Schwann (1810-1882), a gentle soul, son of an obscure bookseller in a small Prussian town. He became professor in

Louvain and Liege and is best known for this cell-theory, first fully developed in his Mikroskopische Untersuchungen --- der Tiere und Pflanzen. J.J.Walsh (Makers of Modern Medicine, 1907) gives a good account of the life and works of this eminent man.

Richard Owen (1804-1892), was born in Lancaster, the son of a merchant, and contemporary of Johannes Müller. His fame as a naturalist seems about equally divided between comparative anatomy and paleontology but his activities, as curator of the Hunterian Museum, and as keeper of the Natural History branch of the British Museum at South Kensington (until he was 80 years old) kept him in touch with all departments of biological research. ¶ It was about this time that Johann J. Kaup (1803-73) wrote his works on (tomical) classification of animals, most of whose titles are listed in this talogue. ¶ Contemporaries of Müller and Owen were Karl Theodor von Siebold (1804-1885) and Friedrich Hermann Stannius, who collaborated to write a well-known treatise, it is something more than a text-book, a Lehrbuch der vergleichenden Anatomie, 1846, in which Stannius describes the vertebratae and Siebold the invertebrates. In this work especial attention is given to microscopical anatomy, in contrast to other pretensions works

of the kind in which morphology is more or less neglected.

The pioneer comparative biologist of Sweden, as well as one of her foremost naturalists, was Anders Adolf Retzius (1796-1860), born in Lund. He studied under the foremost teachers of the day; indeed his work (and reports of it) on the Myxinoidei formed the basis of Johannes Müller's celebrated treatise, while his researches in anthropology are written into the records of modern craniologic terminology.

~~Of Japan etc.~~

An important series of monographs, now very rare in their complete state, were published by C. P. Thunberg during 1822-3 describing the faunal life of widely separated Zoological areas, among them Middle America, Brazil, Japan, New Holland, China, the Guianas et al.

See omission
Line 14.

dates

64. 67

In the year 1767 appeared a posthumous work by Salerne (d. 1760), issued from Paris and entitled Histoire Naturelle --- l'Ornithologie. ~~It was based on Ray's Synopsis and the treatise is much of value to avifaunal literature.~~ Newton, always chary of praise, speaks very highly of the volume.

Acting under Buffon's influence and subsidized by the French Government, D'Aubenton, between 1765 and 1780, ~~completed~~ published his remarkable atlas entitled Planches enluminées d'histoire naturelle. It appeared in 42 parts and pictured 1008 animals, mostly birds. It was certainly a tremendous undertaking and there is to-day no more imposing collection of hand-colored plates. As the atlas was without accompanying text Buffon supplemented the work by his Histoire naturelle, générale et particulière, nine of the 44 volumes being devoted to avian life. This arduous undertaking was begun in 1749 and was not completed until 1770, during which time Buffon had the assistance of several competent and careful collaborators. Too much praise cannot be given the author of this remarkable treatise, enlarging, as it did, every department of zoological research.

the whole, the two Grays, (G George Robert (1808-72) and John Edward (1800-75) did more than any other systematists to ee vertebrate Zoology on an enduring basis. Their work in e British Museum and elsewhere is voluminous, catholic and reliable. Only a small part of ~~that~~ their essays, ~~and~~ catalogues and other literary titles are mentioned ~~on labels~~ in this Introduction but most of them have been listed in the Catalogue and Index. While on this subject attention must be drawn to the fundamental and enduring work on neotropical classification and nomenclature carried on for nearly a century by American systematists - most of it contributed to U.S. Government Publications. Although titles in serials have been - as stated - necessarily ignored in this Introduction the Blacker and other libraries of McGill University have on their shelves a goodly array of these indispensable publications ~~referred to as Federal Documents~~ to Baird, Merriam, Nelson, Richmond, Gill, Allen, Coues, Henry, Ridgway, and a hundred other faithful workers - living and dead - who have left their mark on the history of Zoology.

The next meritorious contribution to avian literature was the well-known General Synopsis of Birds (1781-1802) by John Latham, ~~followed by several other though less useful treatises~~ in fact.

In quick succession followed Shaw's Memoirs (1792) of the Museum Leverianum, Mauduyt's Ornithologie (1784) in the Encyclopédie Méthodique, a second edition of which was begun in 1790 by Bonnaterre, after whose tragic death during the French Revolution it was finally finished by Vieillot in 1823. A little later appeared the first (folio) edition of the monumental treatise of Naumann on the birds of Germany.

In the preface to his Dictionary of Birds, Newton briefly cites the ~~names~~ of many ornithologists (and their works) as belonging to this period, among them Thomas Pennant (1726-1798) (Genera of Birds); Schäffer (1718-1790) (Elementa ornithologica); Peter Brown (fl. 1776) (New Illustrations of Zoology); Hermann (Tabulae Affinitatum Animalium); [redacted] Jacquin (1766-1839) (Beytraege zur Geschichte der Voegel); Sparmann (1748-1820) (Museum Carlsonianum) and Hayes (circ. 1729-1799) (Portraits of Rare and Curious Birds). These titles with their dates of publication appear in the accompanying Catalogue of the McGill libraries.

During this period, also, P.L.S.Müller (1725-1776) published a (translated and amended) edition of the Systema Naturae. Ten years later

appeared the rare Table des Planches enluminéez, reprinted by Tegetmeier. In 1786 Scopoli published his Deliciae Florae et Faunae Insubricae, a rare work, also reprinted, and based on Sonnerat's Voyage aux Indes, etc. (1872-1876). Two years later appeared Gmelin's celebrated compilation of (the thirteenth edition) of the Systema Naturae. Another important general treatise on ornithology, issued in the eighteenth century was F.M. Daudin's Traité élementaire etc.

In addition to the many early works in various departments of comparative anatomy already mentioned, the names of Perrault, Du Verney, Gerard Blasius, Valentini, Borrichius and the two Bartholinis must not be forgotten.

¶ In this connection the Compiler wishes to repeat that when the name of author entitled titles of the majority of this contributions may be found alphabetically and chronologically arranged in the body of this Catalogue. of

appeared the rare Table des Planches enluminées, reprinted by Vegetables. In 1766 Scopoli published his Deliciae Florae et Faunae Insubricae, a rare work, also reprinted, based on Sonnerat's Voyage aux Indes, etc. (1872-1876). Two years later appeared Gmelin's celebrated compilation of (the thirteenth edition) of Systema Naturae. The most important general treatise on ornithology to be issued in the eighteenth century was F.M. Daubin's Traité élementaire etc.

In addition to the many early works in various departments of comparative anatomy, already [illegible] mentioned, the names of Perrault, Du Verney, Gerard Blasius, Valentini, Bartholine and the two Bartholinis must not be forgotten.

[illegible] the names of most authors mentioned by Cuvier in his [illegible] titles of the majority of [illegible] contributions are alphabetically and chronologically arranged in the body of this Catalogue.

Very rare and yet fundamental is the Zoologia Indica Selecta of J.R.Forster, Halle, 1781, of which Tennant's Indian Zoology London, 1790, is really an English translation amended and greatly enlarged. The Öology and its literature will not occupy much space in this Introduction although the appended Catalogue will be found to list most of the works on avian and reptilian eggs. One of the finest illustrated atlases depicting the former is F. A. L. Thienemann's Einhundert Tafeln von Vögeleieren, 1845-54.

The mammals, reptiles, amphibia and birds of the Ethiopian Region (Africa in particular) have had extensive literary attention, and it is not possible to mention all the deserving works on the vertebrate fauna of all the provinces. Prominent among them are Sir Andrew Smith's Illustrations of the Zoology of South Africa (1838-1849), the second edition by Sharpe issued in 1884; Andersson's Notes on the Birds of Damara Land (1872); Holub and von Pelzeln's Beiträge zur d. Ornithologie Sudafricas (1882); Shelley's comprehensive Birds of Africa (1896-1912); Layard's Birds of South Africa, 1867. Newton's article in the Encyclopedia Britannica, 9th. edition; Reichenow's Die Vögel Afrikas (1904) von der Decken's extensive Reise in Afrika, 1870; Canon Tristram's Fauna and Flora of Palestine; Rochbrune's Faune de la Senegambie, 1884; Levaillant's Oiseaux d'Afrique, 1799-1808, and the fauna described in the Histoire physique, naturelle et politique de Madagascar, 1875-1884, by Alphonse Milne-Edwards, Alfred Grandidier and others.

Very rare and yet fundamental is the Zoologia Indica Selecta of J.R. Forster, Halle, 1781, of which Tennant's Indian Zoology London, 1790, is really an English translation amended and greatly enlarged.

The mammals, reptiles, amphibia and birds of the Ethiopian region have had extensive illustration, and it is not possible to mention all the deserving works on the vertebrate fauna of all the provinces. Prominent among them are Sir Andrew Smith's Illustrations of the Zoology of South Africa (1838-1849), the second edition by Sharpe issued in 1884; Andersson's Notes on the Birds of Damara Land (1872); Holub and von Pelzeln's Beiträge zur Ornithologie Südafrikas (1882); Shelley's comprehensive Birds of Africa (1896-1912); Heuglin's article in the Encyclopädie Britannica, 9th. edition; von der Decken's extensive Reise in Afrika, 1870; Canon Tristram's Fauna and Flora of Palestine; Boobrune's Faune de la Barbarie, 1884; Levaillant's Oiseaux d'Afrique, 1799-1808, and the fauna described in the Histoire Physique, naturelle et politique de Madagascar, 1875-1884, by Alphonse Milne-Edwards, Alfred Grandidier and others.

1, it Rafinesque Schmaltz
B.M. 1639

One of the numerous supporters of the Linnean method was the brilliant though erratic Rafinesque (1783-1840), that Sicilian-American author whose references is elsewhere made. Other systems were advocated by Barrère in 1745 (Ornithologiae Specimen Novem; Perpignan); Möhring in 1752 (Avium Genera; Aurich) and the better known Klein, who published his Historia avium Prodromus at Lübeck in 1750.

About this time atlases of colored plates figuring birds began to appear. Among the first of these were two large folios (1731-1743) containing fine pictorial illustrations of Mark Catesby's Natural History of Carolina, destined for several foreign translations and reproductions. This work was followed in 1738-40 by Eleazer Albin's colored figures illustrating his Natural History of Birds and, best of all, by George Edwards' Gleanings of Natural History in four quarto volumes.

One of the finest publications of this period is the Ornithologie of Mathurin J. Brisson (1723-1806) who, like the authors just mentioned, modified in many respects the classification of the Linnean Systema.

The first half of the nineteenth century witnessed the visits of a number of zoologists not only to India but to its neighbouring countries. Among these naturalists one may mention Sir Stamford Raffles (1781-1826) who not only wrote, in 1817, a two volume History of Java (valuable to students of zoology) but contributed to Jardine's Illustrations of Ornithology; and Thomas Horsfield (1773-1859), born in Philadelphia, died in London, who was the author of many treatises on the fauna of the Far East - the Dutch East Indies in particular. Perhaps one of his first contributions to the literature of the subject was his Zoological researches in Java, 4to., London, 1824, with a large number of colored plates.

Dutch travelers sustained their reputation as active explorers by contributions to the natural history of their own East Indian possessions. Of these Caspar G.C. Reinwardt (1773-1854) was a prominent writer, although his reports were mostly botanical.

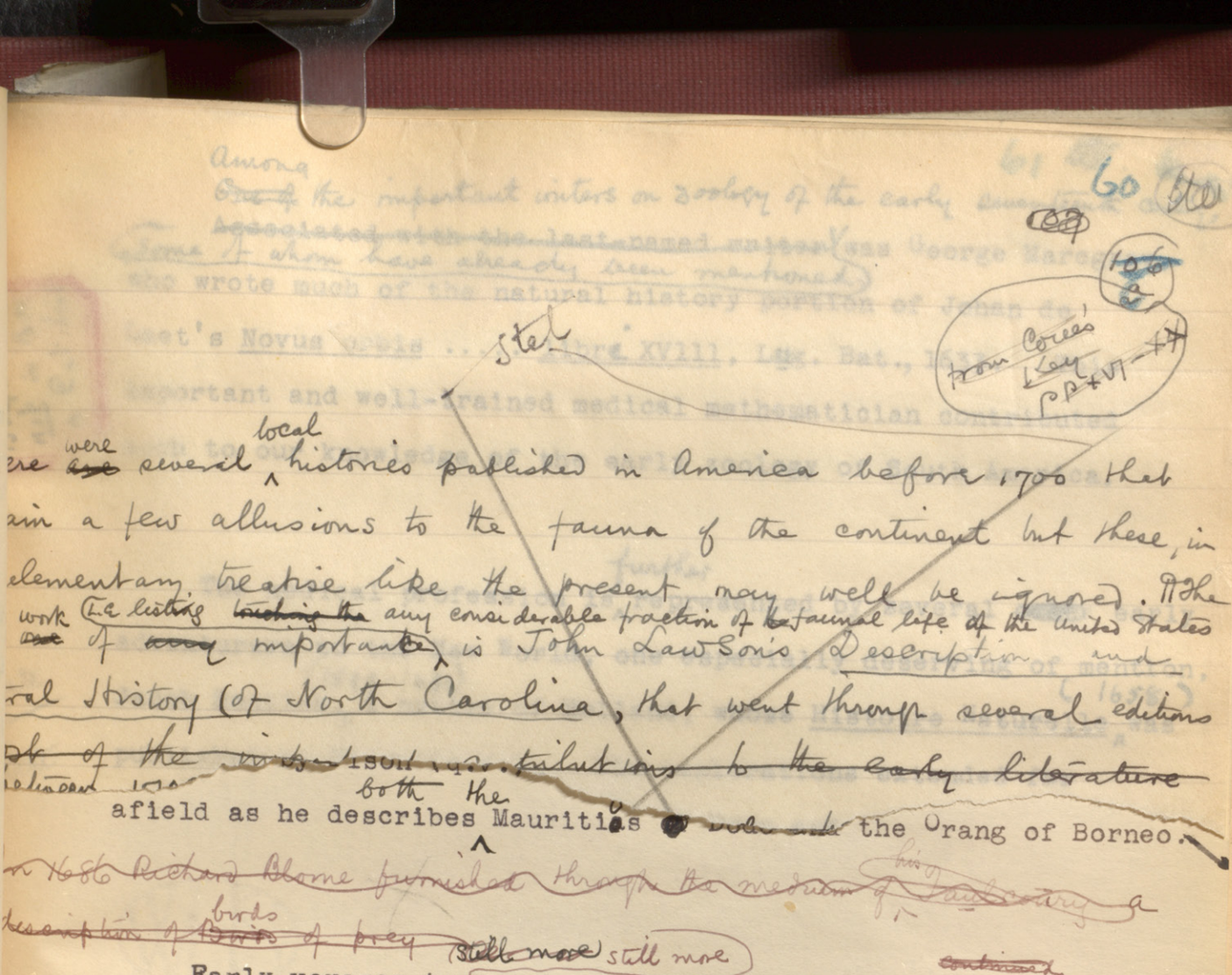
As a member of the Natuurkundige Commissie in Ost-Indie Salomon Mueller wrote (with H. Schlegel) a Zoology of the Dutch East Indies, folio, 1839-44, that is a reference classic. Working on the same task C.J.Temminck contributed Verhandling over de Natuurlijke Geschiedenis der Nederlandsche overzeesche besittingen etc.

In 1619 Bochart wrote, as previously noted, the first treatise (Hierozoicon) on the animals - including the birds - mentioned in the Bible.

In this time appeared an interesting work by Francesco Cercano vel Sforzino, led I tre libri de gli Uccelli da Rapina --- con un trattato dei Cani,
22.

¶ During this (seventeenth) century the avifauna of the New World began to receive [illegible] among them He[illegible] Marcgrave, Wo[illegible]gs attributed to [illegible]ogue.

¶ Following the combined labors of John Ray and Francis Willughby (elsewhere described), two years after the death of the former, the famous Systema Naturae of Linnaeus appeared. The terse descriptions and the binomial nomenclature of this epochal work distinguish it ~~this special work~~ from all previous systematic treatises on birds. As is well known, the editions published under the author's supervision bear the dates 1740, 1748, 1758 and 1766, all of which should form part of the armamentarium of every properly equipped zoological library. As everybody knows it is the tenth edition that forms the Bible of modern floral and faunal classification.

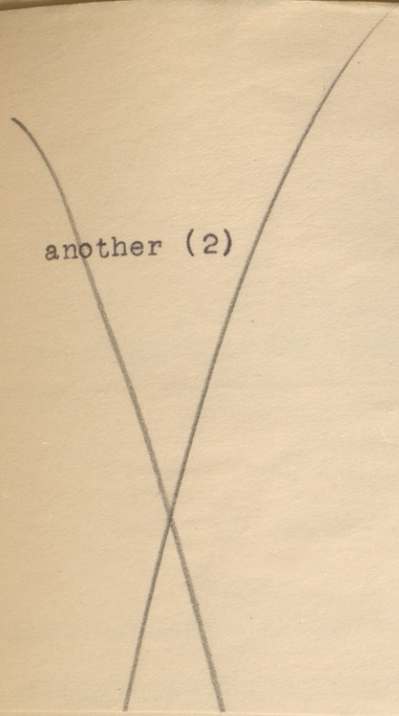


ere were several local histories published in America before 1700 that
ain a few allusions to the fauna of the continent but these, in
elementary treatise like the present may well be ignored. The
work The listing touching the any considerable fraction of the faunal life of the United States
of many importance is John Lawson's Description and
ral History of North Carolina, that went through several editions
both the
afield as he describes Mauritius the Orang of Borneo.

birds
Still more still more

Early voyages to remote parts of the Old World and descriptions of their faunal and floral life are recorded by many hardy explorers. Only a few of these can be mentioned here; the expedition to Palestine of Georg Breydenbach, who furnished the first drawing of the giraffe; of Johann Leon Africanus,

another (2)



a Spanish Arabian (El Hassan el Wasan, died 1532), whose writings on African zoology have been "absorbed" by several other writers; of Prosper Alpinus (1553-1617), whose Historia naturalis, descriptive of animal life in Egypt, appeared in Leyden, 1735; and the many travels and reports of Pierre Belon, the celebrated naturalist whose works we have several times noted.

Quite early the Russian empire was visited, explored and described (mostly by Germans) to some degree in the interests of scientific research. Sigismond von Herberstein wrote one of these accounts (Rerum muscovitarum Commentarii, Basel, 1556) and another von Gaspard Schwenkfeld (Theriotropheum Silesiae, etc. 1603).

~~another~~

? ? Here a new chapter. The literature of ? ? mammalogy from the 17th century to the present.

Monographs on special zoological subjects began to appear at a relatively early date. We cannot do more than mention the more important. Nicholas Tulp, Dutch physician, first described (Observationes medicae, 1641) the chimpanzee and other hitherto unknown animals; Wolfgang Waldung (Lagographia etc. 1619) gave us an illuminating account of the biology of the hare; Jacob Thomasius furnished the first scientific account (De Visu Talparum, 1659) of vision in the mole; Olaüs Wörm wrote a monograph

Gillius 14th dale amber?

57. 63

(Historia animalis quod in Norvagia, etc. Hasniae, 1653) on the lemming, with anatomical figures; and there were published volumes too numerous to mention on such domestic animals as the dog and cat, although one may except the original and admirable English monograph on the dog by John Caius, (1510-1573) various editions of which are shelved in the Blacker and other libraries of McGill. From the earliest times, and by Persian, Indian and European authors, the elephant was a favourite monographic subject. However, Justus Lipsius, Gaspard Horn, and Joachim Praetorius followed the good example set by Petrus ~~Grylliius~~ Gillius, ~~and~~ and described the elephant from personal observation.

Ruminants naturally attracted the attention of early writers on domestic and general zoology. Johannes Aemylianus Ferrarensis in 1584 wrote a partial treatise on the subject while J. Geo. Agricola published two editions (1603 and 1617, Amberg) on the deer and its use in medicine; and there were many others.

The horse and his allies have a still greater monographic bibliography, to their credit; many are the tractates ~~The works~~ dealing with equine anatomy and therapeutics. Several early Persian MSS. and printed books in the Blacker Library deal with this subject. In 1598 Carolo

Ruini wrote a Book on the Horse that ran into several editions. The wild zebra was described about the same time by the voyagers Pigafetta and Thévenot. ~~The hippopotamus from an example sent to Rome from Damietta preserved in salt was carefully described~~ In 1616 Fabius Columna published a very good description of a hippopotamus.

Despite the preponderance of early medieval and other books on the subject mammalogy per se simple has not, on the whole, excited as much literary interest throughout the ages as ornithology and probably not more than ichthyology. As a consequence the treatises and periodicals on the first subject do not talk as large on the shelves of most libraries devoted to natural history as do works on bird life love. ~~However that may be,~~ the Compiler will first consider these more modern publications on the mammalia that appear to him of greatest value and interest to advanced students

~~Topsell, Ray, et al — see Jordan 1886~~

ed literature;

Olaüs Worm,

s are noted

to literature,

pentine, although

nly included

s who were

certilian age.

Marcus Aurelius

first two writings in

The discovery of the New World and its explorations furnished during the succeeding three centuries many hitherto unknown specimens and much literary matter descriptive of ~~other~~ animal forms. It was about this time also that certain medieval anatomists contributed accounts of their labours to the progress and history of comparative zoology. The chief of these, in addition to Fabricius and Severinus, were

116.

~~Fabricius (1537-1618)~~, Harvey (1578-1657); ~~Severinus (1580-1656)~~, Malpighi (1628-1694); Tyson (1649-1708); Swammerdam (1637-1680) and Hook (1635-1702), all of whose writings are represented in the accompanying Catalogue.

~~noted in the Preface~~

These treatises may be regarded as forerunners of the classic volume work on comparative anatomy by the great Cuvier first published in 1800-1805, a revised edition of which in 8 vols. also appeared in 1835-46. An incomplete, English, version of the same treatise (in two volumes) was published, London, 1802. They all lead up to such more recent treatises of B.W. Hawkins' Comparative Osteology, an Atlas prepared under supervision of Prof. T.H. Huxley in 1864.

~~Modern text-books~~ ¶ More recent essays and treatises are accessible in considerable numbers. Among them is Sir Everard Homes' Lectures on Comparative Anatomy, 4 vols. (1814–23) and Supplement (1828) 2 vols., well illustrated and of great value to the student.

¶ Another excellent and more modern work is George Rolleston's Manual of Comparative Anatomy, the second edition of which appeared in 1888.

¶ A noteworthy work is Max Weber's Die Säugetiere, 1904, a monograph on the anatomy and classification of mammals recent and fossil.

A mention has several times made to the hundreds of (in all languages) on "game" animals + their pursuit in the interest of so called sport. Although the compiler views with mixture of contempt and wonderment the chase of inoffensive animals by man armed with a high intelligence and high power guns, and seems unable to comprehend the cruel murder of fellow creatures for the more beautiful and often useful gratification of the lust to kill, killing, he freely admits that accurate accounts and records of the fauna as part of now under discussion are frequently found in these melancholy tales of slaughter. For this reason alone they are included in the present volume, in the hope as the veneer of civilization with which some humans have very thinly smeared is spoken for the thicker varnish of a rational pity and a feeling of animal rationalism. These publications the acts that prompted them will be found only among the literature of the centuries that are passed.

635

W.R. CASEY WELLS ZOOLOGICAL BRITISH MUSEUM (NATURAL HISTORY) CROMWELL ROAD LONDON, S.W.7

INDEX INDICUM OF STUDENT'S AND LIBRARIAN'S AUTHOR INDEX.

Page

General Treatises on Vertebrate Zoology.

Vertebrates of the World .. ..

Birds of the World .. ..

Mammals of the World .. ..

Fishes of the World .. ..

Reptiles and amphibia of the World .. ..

Africa. The whole Continent.

General treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

~~Reptiles and Amphibia .. ..~~

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Page

Asia. The Entire Continent.

General Treatises .. ..

Birds. .. ..

Mammals .. ..

Europe. The Entire Continent.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Africa. North and Middle.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Africa. South.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

B.

Page

Asia. The Early Century.

General Treatises .. ..

Birds. .. ..

Mammalia .. ..

Europe. The Early Century.

General Treatises .. ..

Birds .. ..

Mammalia .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Africa. North and Middle.

General Treatises .. ..

Birds .. ..

Mammalia .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Africa. South.

General Treatises .. ..

Birds .. ..

Mammalia .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

633 (663)

America. Both Continents

General treatises .. ..

Birds .. ..

Fishes .. ..

America, Middle; and West Indies.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

America - United States; and Canada.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

America - South.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

America - Middle and West Indies.

General Treatises .. ..
Birds .. ..
Mammals .. ..
Fishes .. ..
Reptiles and Amphibia .. ..

America - United States and Canada.

General Treatises .. ..
Birds .. ..
Mammals .. ..
Fishes .. ..
Reptiles and Amphibia .. ..

America - South.

General Treatises .. ..
Birds .. ..
Mammals .. ..
Fishes .. ..
Reptiles and Amphibia .. ..

Page

Australasia.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Belgium and Holland.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Borneo. See Malaysia; Borneo and Philippines.

Canada. See America; United States and Canada.

Ceylon. See India and Ceylon.

China and Japan.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Page

Australasia.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Belgium and Holland.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Borneo. See Malayala; Borneo and Philippines.

Canada. See America; United States and Canada.

Ceylon. See India and Ceylon.

China and Japan.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

640

Egypt, Syria and Palestine.

General Treatises .. ..

Birds .. ..
Fishes .. ..

Europe, Middle. See Germany and Middle Europe.

Europe, Northern. See Scandinavia and Northern Europe.

Europe, Southern. See Italy and Southern Europe.

France and Switzerland.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Germany and Middle Europe.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Page

Egypt, Syria and Palestine.

General Treatises .. ..

Birds .. ..

Europe - Middle. See Germany and Middle Europe.

Europe - Northern. See Scandinavia and Northern Europe.

Europe - Southern. See Italy and Southern Europe.

France and Switzerland.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Germany and Middle Europe.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Great Britain.

General Treatises .. ..
Birds .. ..
Mammals .. ..
Fishes .. ..
Reptiles and Amphibia .. ..

Holland. See Belgium and Holland.

India and Ceylon.

General Treatises .. ..
Birds .. ..
Mammals .. ..
Fishes .. ..
Reptiles and Amphibia .. ..

Italy and Southern Europe.

General Treatises .. ..
Birds .. ..
Mammals .. ..
Fishes .. ..
Reptiles and Amphibia .. ..

Great Britain.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Holland. See Belgium and Holland.

India and Ceylon.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Italy and Southern Europe.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Japan. See China and Japan.

Malaysia, Borneo and Philippines.

General Treatises .. ..

Birds .. ..

Mammals ... .

Fishes .. ..

Reptiles and Amphibia .. ..

Oceania and the South Seas.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Palestine. See Egypt, Syria and Palestine.

Philippines. See Malaysia, Borneo and the Philippines.

Portugal. See Spain and Portugal.

Russian Empire.

General Treatises .. ..

Birds .. ..

Mammals .. ..

Fishes .. ..

Reptiles and Amphibia .. ..

Japan. See China and Japan.

Malayala, Borneo and Philippines.

General Treatises .. ..
Birds .. ..
Mammals ... .
Plants .. ..
Reptiles and Amphibia .. ..

Oceania and the South Seas.

General Treatises .. ..
Birds .. ..
Plants .. ..

Palestine. See Egypt, Syria and Palestine.

Philippines. See Malayala, Borneo and the Philippines.

Portugal. See Spain and Portugal.

Russian Empire.

General Treatises .. ..
Birds .. ..
Mammals .. ..
Plants .. ..

Scandinavia and Northern Europe.

General Treatises 1080

Birds 1086

Mammals 1091

Fishes 1093

South Seas. See Oceania and the South Seas.

Spain and Portugal.

General Treatises .. .. 1096.

Birds 1098

Mammals .. ..

Switzerland. See France and Switzerland.

Syria. See Egypt, Syria and Palestine.

United States. See America. United States and Canada.

West Indies. See America, Middle; and West Indies.

~~manuscript. To be returned~~

~~to museum.~~

Scandinavia and Northern Europe.

General Treatises .. ..

Birds .. ..

Mammalia .. ..

Fishes .. ..

South Seas. See Oceania and the South Seas.

Spain and Portugal.

General Treatises .. ..

Birds .. ..

Mammalia .. ..

Switzerland. See France and Switzerland.

Syria. See Egypt, Syria and Palestine.

West Indies. See America - Middle; and West Indies.

13.6 VERTEBRATE ZOOLOGY.

GENERAL. Treatises on Animals of the World.

This section includes works that deal with more than one general branch of vertebrate zoology. The student of a particular branch will, accordingly, consult not only the titles here listed but look up special works under their separate headings. To assist in the search a most titles have (in parentheses) an indication of any particular subject specially treated in the quoted work.

Letters sent in

Level

Dpt. Nat. Hist.

0 B.C. Aristotle.

9 A.D. Plinius Secundus.

40 ~~A.D.~~ Aelian.

0 ~~A.D.~~ Oppian.

40 A.D. Mesuë

1020. Theobald.

70. Averroës.

40. Albertus magnus.

0. Barthomaeus Anglicus.

5. Thomas de Cantimpré.

+6. von Megenberg. V3 ed.

5.
l-Damiri. V3 ed.

+67. Rabanus Maurus. V3 ed.

69. Plinius ~~Secundus~~ Secundus. (Ancient.) V3 ed.

73. Vincent de Beauvais. V3 ed.

78. Megenberg, K. von

1479. Anselm of Canterbury.

1485. von Cube, Johann.

1501. Avicenna.

1535. Oviedo, # . (Travels)

1557. Wotton, Ed.

557. Gesner, Conrad. [illegible]

552. Wotton, [illegible] Ed.

555. Gesner, Conrad.

557. Scaliger, J. C.

565. Aelianus, C. (P. Gillius Trans.).

583. Gyllius, Petrus. [illegible]

614. Ferrarensis, J. A. (Ruminants)

590. d'Acosta, Jose (Travels). ~~Travels~~ 3

1595. Frey, H. H. Gl.

598. Ruini, Carlo. (Horse) Complete 3 vol.

599. Aldrovandi, Ulisse. ~~[illegible]~~ v3. Gl.

99. Imperato, Ferrante (Fossil). v. 3. Engl.

001. von Hoevel, H. v3 Gl.

603. Agricola, J. G. (Deer) Complete Vol.

1555. Belon, Pierre. (Comp. Zool.)

1605. Lécluse, C. de

1612. Franz, Wolfgang. (Class.)

1718. Sennert, Daniel. (class.)

1719. Waldung, Wolfgang. (Hare)

1825. Germano, Giovanni. (Comp. Zool.)

1633. Johnstonus, Johannes.

1635. Nieremberg, J. E., (Class.)

1641. Julp, Nicholas (Comp. Zool.)

1645. Severinus, Mr. A. (Comp. Zool.)

1648-58. Piso, Guil. (Cent. Am.)

1650. Severinus, M. A. (Comp. Zool.)

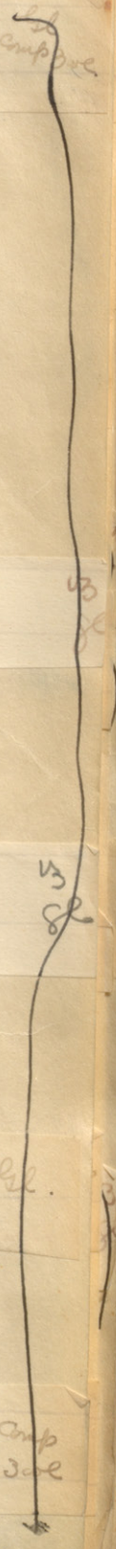
53. Wurm, Olaüs (Comp. Zool.)

655. Worm, O. (Museum.)

7. Plinius secundus. (Dutch ed.)

58. Bontius Jacob.

59. Thomesius, Jacob (Mole.)



1661. Sperling, Johann (Class.)

663. Bochart, Samuel. (Sacred)

72. Bonfadini, Vita (Sport.)

672. Willis, Thos. (comp. psych.)

673. Blaes, Geraard (Comp. anat.)

673. LeGrand, A.

80. Plater, Félix. (Fossil).

1680. Rommel, Petrus (Comp. Embryol.)

1681. Blasius, Gerard. (Anat.)

1685. Collins, Saml. (Comp. Zool.)

1687. Fabricius ab Aquapendente (Comp. Zool.)

1693. Ray, J. (Mamm. and Snakes.)

5. Rumphius, G. E. V3.

2-30. Redi, Francesco. (comp. zool.) V3.

13. Ray, J. (Birds and Fishes.) V3.

18 ~~1705~~. Willughby, F. (Letters. Ray). V3.

20. Valentine, M. B. (Comp. anat.) V3.

29. Caius, John. (Dogs.) V3.

734 – 65. Seba, A.

40 – 66. Linnaeus, Carl. (class.)

744. Aelianus, C. (Graec latin).

746. Linnaeus, Carl. (class.)

749 – 1804. Buffon, G. L. L. de

1754. Klein, J. T.

51-85. Houttuyn, M.

762. Brisson, M. J. (Class.)

62. Haller, albrecht von (Bib.)

53-5. Alléon-Dulac, J. L.

85-80.) Daubenton, E.L. - Boddert, P. (Atlas.) (Reprint, 1874.)

766. Hasselquist, F. (Voy.)

1766. Linnaeus, Carl. (Class.)

766. Pallas, P.S.

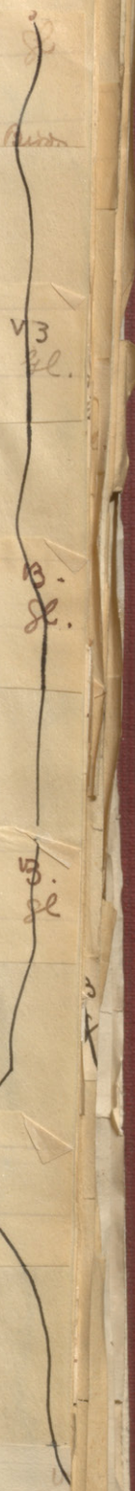
766-1799. Buffon, G.L.L.

66-1804. Vosmaer, A. (Separates.)

767. Byron, J. (Voy.)

69-1800. Banks, Sir J. (Bibl.)

1773.	Hawkesworth, J.	(Voyages.)
1775.	Forskål, Peter.	
1776.	Brown, Peter.	
1776.	Linnaeus, C.	
1777.	Cook, Capt James.	(Travel.)
1777-84.	H.M.S. "Resolution".	(Voyages.)
1778.	Pallas, P.S.	



9–81. Bonnet, Chas.

180. Haller, A. van (Birds and Fishes.)

180–84. Borowski, G. H.

2. Spallanzi, Lazzaro.

74. Maudyt, L. [redacted] (Encycl.)

6. Hunter, John. (Comp. 3 vol.)

6. Scopoli, G.A.. Gl. V. 3.

86-89. Sparmann, A. (mus.) Gl. V. 3.

87. Coxe, W. (Voyage)

88. Forster, J.R. Gl. V.

88-93. Gmelin, J.F. (class.) Gl. V.

90. Shaw, George. (Class.) Gl. V.

- 1813. Shaw and Nodder. (Atlas.) Gl. V.

1. Valmont de Bomare. (Dict.)

92. Osbaldiston, W. A. (Dict. Game.)

92. Shaw, G. (Mus.).

93, 1819. Vicq d'Azyr, Felix. (Comp. Anat.)

4. Darwin, Erasmus. (Evol.)

5-7. Bechstein, J. M. (Caged an.)

Miller, J. F. (Atlas.)

97. ~~Bech~~ Bechstein, J. M. (Caged Animals.)

997. La Perouse, J. F. de G. (Voy.)

97. Römer, J. J.

98. Cuvier, G. L. C. F. D. de

-1800. Banks. Jos. (Cat.)

00. Wiedemann, C. R. W. (Cuvier trans.)

0-26. SRaw Geo.

1. Fischer, Gotthilf.

02. de Lamarck, J.B.P.A.M. (Comp. Zool.)

-5. Treviranus, L.C.

03. Camper, Peter. (Comp. Zool.)

OH. Herimann, J.

5. Goldsmith, Oliver. (Pop.)

Pulteney, R. (Linnaeus,)

96. Dumeril, A. M. C. (Class.)

6. Fischer de Waldheim, G. (Class.)

6. Linnaeus, C. (Class.)

06. Linnaes, C. (Syst. Nat. Turton.)

07. Gravenhorst, J. L. C. (Class.)

. Temminck, C. J. (Birds & monkeys.)

807. Wood, Wm. (300gr.)

808–1886. Engelmann v. Taschenberg. (Bib.) V2 Fl

q. de Lamarck, J.B.P.A.M. (Evol.) V3. Fl.

–26. Shaw and Stevens. V3. Fl.

29–30. Descript. de l'Égypte. (Exped.) V3 Fl

Illiger, J.C.W. (class.) V3. Fl.

~~Naumann, J. F.~~

11. Pallas, P. S.,

1. Spix, J. B. (Class.)

§11-32. von Humboldt and Bonpland. (Voy.)

§13. Carus, T. L. (It. Poem.)

14-28. Honeg Sir E. (Comp. Anat.)

5. Naumann, J.F.

5. Spix, J.B. (Crania)

1816-30. Dictionnaire des Sc. Nat.

7. Cuvier, L.C.F.D.

7. Goethe, J.W.—

18. Saint-Hilaire, E.G. (Comp. Anat.)

819-21 . Bojanus, L. H. (Comp. Anatomy.)

0-33. Swainson, W. (Atlas.)

824

1. Bowdich, T. E. (Class.)

21. Ranzani, C. . (Pop.)

821-38. Pander, H. C. (Comp. Osteol.).

22. Fleming, John. (class.)

23. Buckland, W. (Fossils)

824. Dampier, W. (Voy.)

24. Wood, Wm. (Cat.)

4-6. Freycinet, Louis de. (Voy. Uranie" - "Physicienne".)

4-6. Quoy and Gaimard (Voyage.)

25. Latreille, P. A. . (Class.) Ve.

26. Müller, Johannes (Comp. 3 vol.). Bee

26. Parry, W - E. (Voy. "Hecla" - "Fury.")

26. Partlock and Dixon. (Voy. "George" and "Charlotte.")

26. . Tiedemann, F. . (Comp. 3 vol.) V

26-30. Duperry, L. I. (Voy. "La Coquille".)

27-35. Griffith, E. (Cuvier.)

27-37. Baer, K. E. . (Embryol.)

37 1828. Lesson, R. P. (Mam. and Birds.)

Stark, John.

828. Wilson, John. (atlas.)

1828-30. Erman, A. G. (Travels.)

828-33. Buffon, G. L. L. (Lejeune ed:).

828-38. Meckel, J. F. (Comp. Anat.)

Bennett, E. T. (menagerie,)

29. Kaup, J. J. . (class.) V.D.

30–2. Lesson, R. P. — V.D.

30–35. Dumont d'Urville, J. S. C. (Vg. "Astrolabe".) V.D.

0–45. Jardine, Sir W. — (Pop.) V.D.

31. Lesson, R. P. (Centuries.)

1–43. Voight, J. S.

32. Brown, Capt. Thos.

32. Lear, E. (Parrots.)

33–43. Oken, Lorenz.

34. Carus, Carl Gustav. (Comp. 3 vol.)

1834. Dashurst, H. W. (Cetacea)

1834. Jourdan, A. J. L. (Dict.).

1834. Mc Murtrie, H.

34. Rudolphi, C. A. (Phys. and Anat.)

34. Swainson, W. (Nat. Hist.)

34. Wagner, R. (Text-book.)

34-40. Martin, Saint-Ange, G. J., and Guerin, F. E.

34-43. Naturalist's Library.

834-63. Reichenbach, H. G. L. (Naturfreund.)

834-74. Buffon, G. L. L de (Suites)

35. Swainson, W. (Class.)

5-6. Quoy and Gaimard (Voyages.)

35-7. Kaup, J. J. (Class.)

1835-42.	Voight, J. S.	(Text-book.)	
1835-46.	Cuvier, G. L. C. F. D.	(Comp. 3vol.)	
35-59.	Todd, R. B.	(Cyclopædia.)	
36-49.	Cuvier, G. L. C. F. D.		
37.	Bourgainville, L. A.	(Voy. "Thetis" - "Esperance".)	
7.	Rudolphi, C. Asmund.	(Comp. 3 vol.)	

1838. Al-Jahiz (Arabic.)

38. Swainson, W. (Menageries.)

1838-44. Darwin, Chas. (Voy. "Beagle".)

39. Beechy, W. F. (Voy. "Blossom".)

39. Laplace, C. P. T. (Voy. "La Favorite".)

39. Lesson, R. P. (Voy. "La Coquille".)

1839. Vigors, N. A. (artic Voy.)

1839-43. Darwin, C. (Voyage.)

40. Brown, Capt. Thos.

.0. Swainson, W. (Taxid.)

-5. Owen, Richard. (Teeth.)

741-8. von Rusegger, Jos. (Travels.)

741-9. Fraser, L. . (atlas.)

741-52. Vaillant, A.N. (Voy. "La Bonite".)

742. Blainville, H.M.D. de. (Anat.)

742. Blainville, H.M.D. de. (Fossils)

1842. Serres, M. de. (Migration)

1842. Wilkes, Chas. (Synopsis. Exped.)

1842-54. Dumont d'Urville. (Voy. "Astrolabe" - "Zélée.")

43. Jacquemont and I. Geoffrey St. Hilaire. (Voy.)

43. Oken, L. (atlas.)

43-4. Hinds, R. B. (Voy. "Sulphur.")

844. Müller, Johannes. (Amphioxus.)

844. and 1856. Wilkes, Capt. Chas. (Voy.)

44-5. Carpenter, W. B. (Treatise.)

4-75. Richardson and Gray. (Voy. "Erebus" - "Terror.")

.5. Wilkes, Chas. (Exped.)

1845-60. Meyer, C. E. H. (Paleon.)

1846. Schmarda, K. L. (Dict. ~~Log.~~)

846. Siebold and Stannius. (Comp. Zool.)

40-55. Petit-Thouars, A. A. du. (Voy. "Venus.")

47. Schwann, Th. (Histology)

847-8. Pöppig, E. F. (Illust.)

1848. Naumann, J. F. (Taxidermie)

848-54. Agassiz, J. L. R. (Bib.)

48-57. Kollar, Vincenz.

1850. Hakluyt, R. (Voy.)

1850-80. Chenu, J.C. (Encycl.)

1851. Vogt, C.C.

1851-3. Wood, J.G. (Pop. Nat. Hist.)

1852. Catlow, M.E. (Pop.)

1852. Leidy, Jos. (Comp. 3 vol.)

1852. Vogt, C.C. (Pop.)

1852. Wilkes, Chas. (Exped. 2nd ed.)

352-54. "Herald". (E. Forbes.) (Voy.)

353. Schmarda, L. K. (Zoogeog.)

354. Agassiz, Louis. (Class.)

54. Forbes, Edward. (H.M.S. "Herald".).

554. Gould, A.A. (Prof.).

54. Siebold and Stannius. (Comp. Anat.)

74-76. Pickering, Chas. (Dist.)

1855. Wolf, Joseph. (Atlas.)

856-8. Hoeven, J. van der (Handbook.)

857. Sclater, P. L. (Dist.)

859. Agassiz, Louis. (Class.)

859-. Bronn, H. G. (Class.)

Bein (Hypos)

2107

~~M~~
~~+4B28~~
~~.S.9s~~

Bartholomaeus Anglicus. fl.13th.cent.
1494? [De los animales; tr.fr.the Lat.,
no t.p. [46,fol. ill. pl. ~~Q~~ 4/5.

Being book 17 of his De proprietatibus rerum. Probably fr.the Spanish ed. pub. Toulouse, Henri Mayer, 1494.

Being typed uncat. 4to

2108

~~M~~
~~+4B28~~
~~.E.2~~

Bartholomaeus Anglicus. fl.13th.cent.
~~[1535]~~ De proprietatibus rerum.
[2nd.Eng.ed.]
Londini, ~~T.Berthelet, [1535].~~
[8],+388fol. ~~Q.~~ 4to.

Bartholinus, Thomas. (1616-1680).

1668. Thomas Bartholinae Dissertatio de Cygni, etc.

1 vol. 16mo.

An early study of the Swan.

(Pap)

Retype

Bartholinus, Thomas. (1616-1680).
1668. Thomae Bartholinaë Dissertatio de
Cygni etc. 1 vol. 16mo.
~~[illegible] [illegible] [illegible] edition 1668.~~

An early study of the Swan.

MS

Another treasure of the Blacker Library is a manuscript of 44 large octavo pages by Sir Joseph Banks written in his own hand and giving an account of his Voyage to Iceland in 1722, after his return from the journey round the world with Captain Cook. This scientific survey of the polar regions was undertaken at the request of Lord Sandwich, First Lord of the Admiralty. Banks was accompanied by Dr. Solander and several assistants whom he engaged at his own expense.

Pub

Unica

¶ Another treasure of the Blacker Library is a ~~woman autograph~~ manuscript of 44 large octavo pages by Sir Joseph Banks written in his own hand and giving an account of his Voyage to Iceland in 1722, after his return from the journey round the world with Captain Cook. This scientific survey of the polar regions was undertaken at the request of Lord Sandwich, First Lord of the Admiralty. ~~after the~~ Banks was accompanied by Dr. Solander and several assistants whom he engaged at his own expense.

7 — d/c

Bartholomaeus Anglicus (fl. 1250.)

1481. De Proprietatibus Rerum.

Gothic Letter, 456 ll. the first and last blank, first initial of each book supplied in red, green, and mauve, other initials and paragraph marks in red, rubricated throughout, stamped morocco, g.e. by Riviere. ~~(Hain,2501; Pellechet, 1868; Proctor *1048)~~ fol. Cologne, Johann Koelhoff, ~~[illegible]~~.

stet.

MS

?(Blades)

The 1482 ed. (Bryant) is in the Bodl. Library

(The first one issued in 1472, ~~[illegible]~~ was)

This is the second Cologne edition, ~~no doubt~~ set up from the first edition, printed in that town by Caxton about nine years earlier. Its author, professor of theology in the University of Paris (like our author, an English minorite monk) founded with Bartholomew de Glanville, who lived about 1360 A.D. The copy in hand is a remarkably fine and clean (a previous owner of the Blacker copy has written in the following comments :- " The book before us is no doubt one of the earliest specimens of Caxton's art, although it is issued to the public as the work of #### Koelhoff.

Caxton, on the termination of his apprenticeship to a merchant or mercer in ## London, in 1442, went into the Low Countries, either on his own account or as the # agent of some ###### merchants, and resided abroad for 30 years. Whilst there he # studied the art of printing on the premises of Koehlhoff during which he was assisted by Wynkyn de Worde, a native of Lorraine.

The first specimens of their craft ~~was this~~ (were the present publication) ~~Bartholomaeus~~ "The Game and Play of Chesse" etc., several of them not being actually issued until some years afterwards and then without date or place.

Caxton returned to England in 1472, ## afterwards going back and forth to the Continent, the first book printed in Westminster bearing date 1477. It was during these migratory visits that he began and finally completed the "Bartholomaeus," which he left with his friend and instructor Koehlhoff, to be published by him under his own name whenever he chose. It was not until three years afterwards that he presented to the world this magnificent edition of this extraordinary work.

The first English edition of the work was published by Wynkyn de Worde, and (it) #### ~~the~~ the most magnificent volumes that #### issued from his famous press.

It is from one of the leaves of his translation that we #### quote the authority for attributing the printing of this Latin version to Caxton. In the "Prohemium Bartholomei de Proprietatibus rerum" - ## a series of introductory verses - he thus writes: " and also of your charity call to remembrance the soul of William Caxton, first printer of this book in Latin tongue at Cologne, himself to advance that every well disposed man may therein look."

Look up Osler.

Bartholomaeus Anglicus.

1492. De Proprietatibus Rerum. Gothic characters.

Folio. 62 ff + 2 + 200 ff. Ill. → Lyons.

Initials in red, blue, green and gold.

19 books. Hain *2510. Br. Mus. Cat. II 435. A rare and beautiful copy. [O.]

This writer, well-known to students of natural history was by birth an Englishman. He should not be confounded with Bartholomew de Glanville. Mullens and Swann say of him that the actual date of his famous work, "De Proprietatibus Rerum," is uncertain. He probably compiled it between the years 1248 and 1267. He is worthy of mention as being the author of one of the earliest printed works on natural history in the English language, and of one of the most widely read books of mediaeval times. His work was

translated into French in 1372, into Spanish and Dutch and into English in 1397. "Its popularity remained in full vigour after the invention of printing, no less than ten editions being published in the fifteenth century of the Latin copy alone, with four French translations, a Dutch, a Spanish, and an English one." The earliest Latin edition was printed at Cologne in 1470, and the first English translation - that made by John of Trevisa for Sir Thomas Berkeley in 1397 - was printed in London in (or about) 1495 by Wynken de Worde.

In the edition of 1495 the English names of the birds appear in the first paragraph of a chapter instead of at the head with the Latin name.

Of the nineteen books into which the work is divided, Book XII. is devoted first to "De Avibus in generali," followed by accounts of "Aquila, or Egle"; "Ancipitre, or Gosehauke"; "Alieto" [=Sparrowhawk?]; "Apibus, or Bees"; "Bubo, or Owle"; "Columba, or Culuour" [=Dove]; "Coturnia, or Curlewe"; "Ciconia, or Storke"; "Cornix, or Crowe"; "Corvo, or Rauen";"Cigno, or Swanne"; "Culix, or Gnatte" [the fly]; "Cicada, or Grasshopper"; "Fenix" [=Phoenix]; "Grus, or Crane"; "Gallus, or Cocke"; "Gallinaceo, or Capon"; "Gallina, or Henne" "Grype" [=Griffon?]; "Herodius, or Faucon"; "Hirundo, or Swalowe"; "Kaladrius" (?); "Larus" [a gull]; "Locusta" [locust]; "Mergulus, or Cote"; "Milvus, or Kyte"; "Nicticorax, or Nyghte Crowe"; "Onocrocalus, or Myre-drumble"; "Pellicane"; "Perdix, or Pertriche"; "Pavo, or Pecoke"; "Passeres, or Sparrowes"; "Strucio, or Ostriche"; "Turture"; "Vulture"; "Ulula" [=Bittern]; "Upupa, or Lapwynge"; Vespertilio, or Remouse" [the bat.]

See, also, the English translation, 1582, in this library. [W.J]

McGILL UNIVERSITY LIBRARY MUSEUM

I hereby subscribe to the Museum Fund of the University Library, to be known as "Friends of the Library", the amount indicated below for the year 1926.

	$50.00	$25.00
$10.00	$5.00	

(Signed)

MS Type 2 copies

~~M~~
~~4B38~~
~~.B~~

~~Bartholomeus Anglicus de proprietatibus rerum~~

1582 Batman uppon Bartholome, his Booke De proprietatibus rerum; tr.fr.the Lat. by John de Trevisa. ~~Folio~~.
Lond., T.East, ~~1582~~ fol.86-425. ~~4to~~
~~Imperfect, beginning~~ The work begins with Bk.7 De infirmitatibus, and ending with Bk.19 De Instru.musicis.

The copy in hand ~~of this rare edition~~ ~~is a rare treatise~~ is the zoological portion, ~~of the De Proprietatibus Rerum by Bartholomeus Anglicus~~, translated by Stephen Batman. It is an extremely rare edition, printed in London, 1582. This copy, ~~from the~~ in the Blacker Library, has been carefully compared with the British Museum copy, and found to agree with it.

~~For notes on this treatise see the annotation of Dean Adams' copy,~~ ~~[illegible]~~

(MS)

Bechstein, Johann Mattäus.

1797. Franz Le Vaillant's Naturgeschichte der Afrikanischen Vögel. Erster Band (all pub.) Sm. 4to. Pp. X + 3 + 210. Index. 48 (I-XLVIII) hand-col. copper pl. 8 parts (all issued). Nürnberg.

This treatise is apparently a translation with amendations ("Aus dem Französischen ubersetzt und mit Anmerkungen verschen") of Levaillant's Histoire naturelle des Oiseaux d'Afrique, 1796, and was probably intended to follow in regular order the 51 livraisons of that very doubtful publication but so far as the annotator knows, came to an end with the eighth part.

Bechstein, Johann Matthäus.

1797. Franz Le Vaillant's Naturgeschichte der Afrikanischen Vögel. Erster Band (all pub). Sm. 4to. Pp. X + 3 + 210. Index. 48 (I-XL-VIII) hand-col. copper pl. (all issued). 8 parts Nürnberg, 1797. This treatise is apparently a translation with annotations ("Aus dem Französischen übersetzt und mit Anmerkungen versehen") of Levaillant's Histoire naturelle des Oiseaux d'Afrique, 1796, and was probably intended to follow in regular order the 51 livraisons of that very doubtful publication but so far as the annotator knows, came to an end with the eighth part. [W.]

MS

Unica - Cop 3
* type (2)
annotation

~~QAP~~
~~+B28~~ Barthez, P[aul] J[oseph], (1734-1806.)
1798. Nouvelle mechanique des mouvements de l'homme et des animaux. Pp. 16+246. 4to.
Carcassonne. ~~1798. 16+246p. Bl. G.~~

scientific
A rare ~~and important~~ contribution to a study of aerial flight. In the last three propositions of the first section (pp. 43-48) the bipedal posture of the bird at rest is considered. The sixth section (pp. 190-245) is a treatise on the flight of birds. This work is of historic importance following upon that of Borelli in the seventeenth century.

~~[X]~~

Bar

H. Ba

C

2.

Type 2 copies

Barthomomaeus Anglicus (fl. 1320-50)

1535. De Proprietatibus Rerum (In English.) Blck letter, double columns of 50 lines. London: Thomas Berthelet. ~~Folio, diced Russia gilt.~~ Second edition in English. Sm. fol. fol. 226 misplaced. Very rare ~~Bt. from Maggs May 1925 £85.~~

Lowndes (vol. II, 898) regards this edition as the chef-d'œuvre of Berthelet's press.*

~~BARTHOLOMAEUS ANGLICUS~~ BERTHOLOMEUS DE PROPRIETATIBUS RERVM. *Londini in aedibus Thomae Bertheleti Regii Impressoris. Cum Privilegio a Rege Indelto*, 1535. Sm. folio, ~~black letter, double columns, printer's device of Lucretia Rawlinson on last page (McKerrow~~ folio 226 *misplaced*, ~~REMARKABLY~~ FINE LARGE CLEAN COPY, *plain morocco, with the monogram and crest of Theodore Williams in gold on the front cover, and his arms on the lower, g. e., by J. Clarke*, ~~£85~~

~~* EXCESSIVELY RARE IN THE VERY FINE STATE OF THE PRESENT COPY.~~ The translation is that of John of Trevisa, made at the request of Thomas Lord Berkeley in 1398. It was first printed in England by Wynken de Worde in 1495. Berthelet's ~~edition which~~ is the chef d'œuvre of his press, is the second edition in English. The earliest edition in Latin was either the one printed at Basle about 1470-71, or that printed at Cologne about the same time. This famous work is a compilation in nineteen books from various departments of human knowledge, and was the encyclopædia of the middle ages. The surname De Glanville is usually, though erroneously, given to Bartholomaeus Anglicus, ~~or the Englishman~~. Berthelet's device is only found in a few copies, the others having the last page blank, and very often the last leaf containing it is wanting altogether.

(missing in this ~~one~~)

instance

MS

~~A copy of this paper in~~ ~~Hain paper (three bound with the~~ ~~46 leaves have been pasted~~ ~~to Facsimile~~

DR. CASEY WOOD,
AUTHOR'S CLUB,
LONDON, S.W. 1.
ENGLAND

type + put in Umiés

2 copies

Blashkowicz Anglicus.

~~BARTHOLOMEUS DE GLANVILLA, ANGLICUS.~~

7th Sept., 1494.

De las Propriedades de las Cosas. El libro de proprietatibus Rerum en Romance. ~~Hispanice.~~

Folio. Gothic Letter, double columns of 46-47 lines. With the woodcut Arms of Spain, sixteen ~~very remarkable~~ large woodcuts and a large woodcut printer's device on a black ground. Woodcut initial letters. Head-lines.

Toulouse, Henri Mayer, 18th September, ~~1494.~~ 1494.

Hain 2523 (without seeing it). Proctor 8722. Pellechet 1887.

46 LEAVES (ggl-mm8), including the entire BOOK XVII, 87 pages, "DELOS ANIMALES," from the above edition, THE FIRST IN SPANISH, OF BARTHOLOMEW THE ENGLISHMAN'S ENCYCLOPEDIA, compiled in the early thirteenth century. The book describes 110 animals, and is preceded by several pages relating to animals in general. ~~It is an extremely rare incunable.~~

l/c

l/c

~~The years of patient drudgery involved in that~~ taking seem to dissolve in the amazement excited by the universal exhibit of the author-compiler's scholarship and erudition. Has Coues lived and if conditions had been favorable, he would, doubtless have carried to completion his ambitious scheme of a

Preface to Catalogue

Sept 5/30. fully read

ff. ~~McG.C.~~ A

OF THE TITLES ON VERTEBRATE ZOOLOGY IN THE LIBRARIES OF McGILL UNIVERSITY.

Bold face 12pt.

This section is essentially an author's catalogue, chronologically arranged. In the absence of any name entitled to authorship, real or assumed, in the work under inspection, the title is listed under the caption "Anonymous", with a secondary heading of the first principal word of the title, and, when deemed useful, cross references are also given.

Titles of periodicals - those bugbears of the Cataloguer - are generally entered under the name of the particular society or body presumed to be responsible for their issue. In addition a cross reference is made to the ordinary title of the magazine or serial, if this precaution is deemed necessary to assist in finding the publication in question. The same treatment is accorded Expeditions, Surveys and Explorations by Governments, Societies, Museums, or other bodies.

From most Catalogue captions the definite and indefinite adjectives or articles as well as prepositions (de, von, van, d', der, di, della etc) are ~~omitted~~ ignored.

A

A PARTIALLY ANNOTATED CATALOGUE OF THE TITLES ON VERTEBRATE ZOOLOGY IN THE LIBRARIES OF McGILL UNIVERSITY.

This Introduction and Catalogue will not notice to any extent elementary College and School Text-books on vertebrates. It also passes lightly ~~extent~~ the literature of veterinary medicine or surgery, of anthropology, microscopical anatomy, biochemistry, zoological cytology, pathology, physiology, specific morphology, microbiology, experimental biology, experimental psychology, serology, vitalism, Mendelism ~~nor~~ and systematic natural philosophy apart from vertebrate zoology. The Compiler knows that all these subjects interest (or should interest) the student but he has at his disposal neither the time nor the space required for ~~even~~ more than a partial catalogue and review of their extensive literature.

Although the Introduction and Index of the present volume deal ~~almost~~ exclusively with the literature of vertebrate zoology, ~~most~~ many of the titles ~~in natural history shelved in the Blacker Library and allied departments of the University, have been published for purposes of reference.~~ herein do not appear to relate to that study. ~~Moreover,~~ However, it must be remembered that many ~~titles~~ works apparently covering only botanical, geological or invertebrate zoological subjects discuss also important topics connected with studies of interest to the investigator in vertebrate zoology.

Although the Introduction and Index of the present volume deals exclusively with the literature of vertebrate zoology, of the titles ~~in natural history shelved in the Biology Library and allied departments of the University, have been published~~ for purposes of reference. It must be remembered that many titles apparently covering only botanical, geological or invertebrate zoological subjects discuss also important topics connected with studies of interest to the investigator in vertebrate zoology.

~~(Preface of Catalogue)~~

~~¶ In Searching for the title of a (vertebrate) Zoological periodical or serial, if it is not found in this Catalogue it will usually be found in the list of periodicals. As a rule only those journals and magazines actually on the shelves of the McGill libraries are listed in the present Catalogue~~

¶ Following the scheme adopted by the Cat. Br. Mus. (Nat. Hist.) the word (Wanting) is appended to titles not there for the moment in any of the McGill libraries. At the same time it is understood that the items thus indicated are "on order" and some of them may have, meantime, been acquired by and are actually in one of the collections. ¶ As new treatises, periodicals etc on vertebrates are constantly appearing and as unheralded old ones come frequently to light it follows that many titles will be added to the McGill shelves of which no notice can be taken in the present compilation. In other words the Catalogue in hand is not a complete roster of all the vertebrate Zoological titles in McGill. Conversely there are quite a few titles of serials and periodicals introduced not only in the hope of securing them for the various libraries but to inform students

and librarians of their existence and importance in a study of the literature of vertebrate zoology. It is the firm purpose of the McGill authorities to secure these (and others) when they appear in the market.

Titles in Arabic, Greek, Russian, Japanese, Chinese, Servian and other languages not employing Italian letters, if transliterated, generally follow the rules laid down by the Cataloguers of the British Museum.

It was the original purpose of the Compiler to append notes of evaluation at least to all important and most of the minor publications, but for many reasons this praiseworthy plan had to be abandoned. However, it is believed that the annotations provided will furnish the student and librarian with a fair idea of the value of the great majority of the fundamental treatises.

With the exceptions already noted the (estimated) 25,000 bound and unbound pamphlets, excerpts, separates, reprints, exfoliates and collections of newspaper and magazine clippings on subjects relating to vertebrate zoology in the McGill libraries, although entered in the card catalogues of the University, are not recorded or evaluated here. Many of these titles may be important contributions to zoological literature - much more important than many of the separately bound volumes - yet there is in the appended list no place for them.

Titles in Arabic, Greek, Russian, Japanese, Chinese, Servian and other languages not employing Italian letters, if transliterated, generally follow the rules laid down by the Cataloguers of the British Museum.

It was the original purpose of the Compiler to append notes of evaluation at least to all important and most of the minor publications, but for many reasons this praiseworthy plan had to be abandoned. However, it is believed that the annotation provided will furnish the student and librarian with a fair idea of the value of the great majority of the fundamental treatises.

With the exceptions already noted the (estimated) 25,000 bound and unbound pamphlets, excerpts, separates, reprints, collections of newspaper and magazine clippings on subjects relating to vertebrate zoology in the McGill libraries, although entered in the card catalogues of the University, are not recorded or evaluated here. Many of these titles may be important contributions to zoological literature - much more important than many of the separately bound volumes - yet there is in the appended list no place for them.

1103A.

per

(4) It will be noticed that many of the German titles in this catalogue are printed with substantives beginning with a lower-case letter. That the initial letter of a German noun should begin with a capital is a well-known convention but it is considered proper in some cases to follow the original source of information - in this case the Union List of Serials.

4

Aarau.

1878 to date. Aarauischen Naturforsch. Gesellschaft.
Mittheilungen. Vols. 1–17.

1114 (1.)

A fair example of a German periodical devoted to local Zoology

(5)

III 3

Aargauische Naturforschende Gesellschaft. See Aarau.

1863-date. Mittheilungen.

Asiatische Naturforschende Gesellschaft, Batavia.

1863-date. Mittheilungen.

Aarsberetnigar om danske Fugle.

See Jahresbericht über die ornithologischen Beobachtungsstationen in Dänemark.

1116

2.

1117 (3)

Aarbog, Bergens Museum. ~~1892 to date~~. See Bergens Museum.

Aarhus, Bergens Museum. 1900 to date. See Bergens Museum.

(4)

Aarsberetning, Bergens Museum. ~~1885-91.~~ See Bergens Museum.

Arachnoidea, Bergens Museum. 1887-97. See Bergens Museum.

1129

Abbildung und Beschreibung Naturhistorischer Gegenstände.

(Berlin).

1795-1802.

Abbildung und Beschreibung Naturhistorischer Gegenstände.

(Berlin).

1795-1802.

Abbott, Charles Conrad (1843–1919).

1120 5

~~Charles [illegible].~~

~~Abbott, Chas. C. (1843–) Jr.~~

~~1868.~~ Catalogue of Vertebrate Animals of New Jersey. (Cook's Geology of New Jersey). ~~8vo.~~ 8vo.

~~Cl. Newark: FRANK WALTERS. Cat. 25, No. 1. $3.50.~~

~~For E.S.W. Apr. 30/28.~~

One of the numerous local lists of American fauna; valuable for reference.

43
24
1

1121 (6)

1884. Bold-face 8pt

mm

8vo.

~~M85~~
~~.A151~~

~~Abbott, Charles Conrad, 1843-~~

A naturalist's rambles about home. By Charles C. Abbott. New York, D. Appleton and company, 1884.

485 p. 19½ cm.

"Appendix: List of the mammals, birds, reptiles, batrachians, and fishes of Mercer County, New Jersey": p. 447-479.

pp. 485. T. of C. Append. Index.

New York. →

1. Zoology—Juvenile and popular literature. 2. Zoology—New Jersey—Mercer County. 3. Outdoor life.

Library of Congress QL81.A2 5-40197†

These notes - the gatherings of many years - and some of which had already appeared in various magazines - were made by the author whilst residing on the Delaware river near Trenton, N. J. The bird notes are confined to chapters XII - XXVII, pp. 93-241, whilst the appendix contains a list of the birds to be found in Mercer County, New Jersey, pp. 451-475. A second revised edition appeared in 1887 (q.v.).

3 0 14

1122 (7)

1887. A naturalist's rambles about home. 2nd. ed. rev. 12mo.

81

pp. (2) + 485. T. of C. Append. Index.

(New York).

A slight revision of the first edition published in 1884 (q.v.), the changes referring more particularly to the mammals and reptiles, the author stating that he found little to amend in the ornithological chapters XII - XXVII.

1123 (8)

(1890)

8 Vo.

~~Abbott, Charles Conrad, 1843-~~

~~A152~~

Outings at odd times. ~~By Charles C. Abbott ... New York, D. Appleton and company, 1890.~~

~~x, 282 p. 17½cm.~~ pp. X + 282. T. of C. New York.

~~1. Natural history—Outdoor books.~~

~~Library of Congress~~ ~~QH81.A22~~ ~~5-42238‡~~

In some of the above outings in New Jersey the author records his experience with Owls, Wrens, Snow-birds, Blue Jays, etc.

1124 (9)

1894.

8vo.

~~Abbott, Charles Conrad, 1843-~~

Travels in a tree-top, by Charles Conrad Abbott. Philadelphia & London, J. B. Lippincott company, 1894.

~~215 p. 19½ cm.~~

pp. 215. Index.

Phila~~delphia~~.

~~1. Birds. 2. Natural history—Outdoor books. I. Title.~~

~~12-2754~~

~~Library of Congress~~ ~~PS1000.A5T7 1894~~

A series of popular essays on natural history based on the author's observations in the vicinity of Philadelphia, Pennsylvania.

1895.

8vo.

~~[Charles Conrad, 1842-]~~

irds about us; ~~by Charles Conrad Abbott~~ ...
olnia, J. B. Lippincott company, 1895. ~~[1894]~~
~~p. illus., 24 pl. (incl. front.) 19½cm.~~

+9-288. front. 23 pl. 50 figs. (1 col.).
T. of C. Index.

Phila.

~~U. S.~~

~~Congress~~ ~~QL676.A14~~ ~~S-18543~~

1125

10

In the opening pages some of the more characteristic phases of bird-life in general are touched upon, followed by a popular account of the birds themselves as found in North America.

1126

(11)

~~Abbott. Bks. Cmnd~~

1895. Cyclopedia of Natural History. Ill. ~~Cloth.~~
~~N.Y. STECHERT - 0.50 - For BLACKER. 26/II/26~~

~~ORDERED~~

A brief account of the subject.

1127 (12)

1911. [88]

Abbott, Clinton Gilbert.

The home-life of the osprey. Photographed and described by Clinton G. Abbott ... with some photographs by Howard H. Cleaves ... London, Witherby & co., 1911.

54 p., 1 l. 32 pl. 26cm. (*On verso of t.-p.:* The birdlover's home-life series.)

Plates consist of mounted photographs, 2 or 3 on a sheet.

1. Animal painting and illustration. 2. Osprey.

Agr 12-502

Library, U. S. Dept. of Agriculture 413Ab23

With thirty-two mounted plates. Sup. 8vo.

London.

54p. + (2). 32 pl. Lndn).

A detailed account of periodical observations at various nests of the Osprey situated at Atlantic Highlands, New Jersey, Gardiner's Island, N.Y. and elsewhere, illustrated with beautiful photographs. The work forms one of "The Bird-Lover's Home-Life Series".

not in B.M. Cat

(13)

1128 (13)

~~Abbott, C. G.~~

1919. Home-life of the Osprey. ~~1919.~~

Pp. 50. ~~[illegible]~~ 4to. 32 photo plates. N.Y.

~~[Have order (or have) all the "Home-life" series]~~

~~Acquisition Order direct from Lower.~~

~~Worthington 7/6~~

~~An excellent and well-illustrated volume, one of the "Home-life Series".~~

Another edition.

RECEIVED
UNIV
27 JUIN 1930

1129

1906.

Abbott, Frances Matilda 1857–

Birds and flowers about Concord, New Hampshire, by Frances M. Abbott ... Concord, N. H., Rumford printing company, 1906.

xxi p., 1 l., 140 p., 1 l. 18 x 14 cm.

"Books for nature-lovers": p. (xvi)–xix.

pp. xxi+(3)+140+(1). T. of C. Index.

Concord, N.H.

1. Birds—New Hampshire—Concord. 2. Flowers—New Hampshire—Concord.

6-30912

Library of Congress QH105.N4A4 (Copyright A 152321)

12mo.

81

An endeavour to bring before other people, especially children, the joy that comes from knowing the common things around us. The birds are dealt with on pages 1-58, followed by a list of those seen by the author about Concord (110), and those seen by other observers (91), pp. 59-74.

Kiel.

1919.

a

c

Abel, Othenio. [1875 —]. 1130

1919. Die Stämme der Wirbelthiere. (Wanting).

A fundamental source of information on the origin and chief characters of vertebrates. A complete account of the amphibia will be found here.

1182

~~Abel, O[illegible] (1875-)~~

1922. Lebensbilder aus der Vorzeit. Jena.

~~STECHERT - (Cloth) $3.25 # - For BLAKER. 26/II/28~~

~~ORDERED~~

aus der Vorzeit
hat in B.M. Cat.

1132 a

~~Stat. U.~~ Amerikafahrt. Jena) ~~1926.~~

1926.

Jan 10.29. Koeplers antiq. ordered RM 26.
Briddlander offers this at same price, after K.

Abhan

S

Cap. Egypt.

1132 b

Abhandlungen aus d. Gebiete der Vogelzugforschung.

See No. 1. Wiegold, H.

Berlin. See (K) Preussiche Akademie der Wissenschaften.

1133

Abhandlungen aus der Naturgeschichte, praktischen arzneykunst....
und anderer Holländischen gesellschaften. (Leipzig),
1775-1776.

Abhandlungen aus der Naturgeschichte, Praktischen Arzneykunst....
und anderer Hollandischen Gesellschaften. (Leipzig).
1775-1776.

1104

Abhandlungen aus der Naturlehre, haushaltungkunst und mechanik. (K. Svenska veten, Stockholm). (Hamburg).

1739-1779. Continued as Neue Abhandlungen....mechanik.

1135

Abhandlungen der Bamberg. Naturforschenden Gesellschaft. 1924 to date.

Abhandlungen der Bamberg. Naturforschenden Gesellschaft. 1924 to date.

1136

Abhandlungen der Bremen. Naturwissenschaftl. Verein.
1864 to date. See Bremen.

Abhandlungen der Bremen. Naturwissenschaftl. Verein.
1864 to date. See Bremen.

1137

Abhandlungen d. Chemnitz. Naturwissenschaft. Gesellschaft.
See Chemnitz. 1859 to date.

Abhandlungen d. Chemnitz. Naturwissenschaft. Gesellschaft.
See Chemnitz. 1850 to date.

Abhandlungen d. Klg. Zoolog. ... Museums zu Dresden.
1887 to date. See Dresden.

Abhandlungen d. Kön. Zoolog. ... Museums zu Dresden.
1897 to date. See Dresden.

Abhandlungen d. Museum für Tierkunde und Volkerkunde zu Dresden. 1886 to date. See Dresden.

Abhandlungen d. Museum für Tierkunde und Volkerkunde zu
Dresden. 1886 to date. See Dresden.

1140

Abhandlungen d. Naturforschende Gesellschaft zu Görlitz.
1827 to date. See Görlitz.

Abhandlungen d. Naturforschende Gesellschaft zu Görlitz.
1827 to date. See Görlitz.

1040 A

Abhandlungen zur Naturgeschichte, Physik und Oekonomie.
(Leipzig),
1779-1780.

Abhandlungen zur Naturgeschichte, Physik und Oekonomie.

(Leipzig).

1779-1780.

~~copy~~

Abhandlungen zur theoretischen Biologie.
~~Berlin~~ 1919 to date. Berlin. ~~BLACKED~~
~~Koehler offers pt.1-27~~ M 130

~~ORDER DEPT NOTIF TO ORDER AND TO ARRANGE CONTINUATION.~~ ~~FEB 27~~ 1929

~~1165~~

1040 B

1141

Abhandlungen d. Zoologisch. Gesellschaft. Wien.

1901-25. (All pub.) Vols. 1-15. pt. 1.

Vol.

Abhandlungen und Berichte d. kgl. zoolog. *** Museums zu Dresden. Hg. A.B. Meyer. No. 7-10. ~~(Dresden)~~ ~~1889-1903. (pub. at 200M.) Cat. 566, No. 135 - M140.~~ ~~Karl W. Hiersemann. ORDER FOR BLACKER.~~ ~~24/III/26.~~

See, also. Dresden.

~~Order dept. to ask to order~~

Abhandlungen und Berichte d. Pommersch. Naturforsch. Gesellschaft. 1919 — date.
Parts 1–9, 1 and 2. See also Stettin.

1344

Abhandlungen und Versuche d. Danzig. Naturforsch[illegible] Gesellschaft.
1746-56. See Danzig.

Abhandlungen und Versuche d. Danzig. Naturforschende Gesellschaft.
1746-56. See Danzig.

1145

Abhandlungen und Vorträge aus den Gebiete der Mathematik,
Naturwissenschaft und Technik.
(Leipzig).
1916-date.

I 13

Abhandlungen und Vorträge aus dem Gebiete der Mathematik,
Naturwissenschaft und Technik. (Berlin)
(Leipzig).
1910-date.

1146
1147
1148

Abhandlungen und Vorträge aus dem Gesammtgebiete der Naturwissenschaften. (Berlin).

1887-1897?

Abhandlungen und Vorträge aus dem Gesammtgebiete der Naturwissen-

schaften. (Berlin). Technik. 1887-1892

Cairo Egypt

1149

Abid b. Hussayn Ansari.

1870. On the lawfulness of the flesh of different animals for food. In Hindustani. Pp. 16. 4to. Lithogram. Lucknow.

Abildgaard, P. C. See Müller, O. F., 1788-1806. 1150

1150
a

Abstract of the Proceedings of the Delaware
1890 - 1900. Valley Ornithological Club. / Phila. Pa
Continued as Cassinia.

Abū Bakr ibn al-Muẓhir ----- al Jamal al-Yazdi.

1493. Farah-(or Farrukh) nāma-i-Jamali.

The following (partial) description of this unique 15th century manuscript on zoology botany etc. is given in

The reviewer is the well-known authority on Persian Mss., (W. Ladimir Ivanow,) formerly attached to the Imperial Library in St. Petersburg, now an official of the Asiatic Society of Bengal at Calcutta. Until recently only one copy of this work was known. It is in the British Museum but is incomplete towards the end. C. Rieu, (Catalogue of the Persian Manuscripts (B.M.,)) describes it in Vol. II, p. 465-6. A Vienna Ms. (No. 1449 in Flügel's Catalogue) contains some extracts from the work. Dr. Casey Wood, of Stanford University, while in Kashmir, acquired another copy of this rare treatise bound in one volume with an early copy of the famous Nuzhat-nāma-i-Ṭala'i and part of another work in the same style and (on the same) subject. Both this fragmentary monograph and the Farah-nama were intended to supplement the earlier Nuzhat-nama. The transcript of the Farah-nama contains not only the two last two chapters, missing in the British Museum copy but it furnishes interesting variants of the latter especially as to the date and place of composition. In Catalogues both works are classed as encyclopedias of useful or natural history sciences; but they are something more and treat of many beliefs - especially superstitions - connected with for organic life

and inorganic matter. It is particularly noticeable that the texts all documents breathe a spirit free of all the bonds of Muhammadan orthodoxy. The present copy gives the date of the original composition (written when the author was only 20 years old) as A.H. 597 or A.D. 1201, while Rieu quotes it as A.H. 597 or A.D. 1184, ~~while another~~ It was composed in the village of Mālik in the province of Istakhr.

For example, the book gives detailed directions as to how the figures of planets & the deities they represent should be drawn - operations specifically forbidden by the Koran.

The diction of the Tarah-nama is very simple and unpretentious and, of course, not quite so archaic as that of the 100 year older ~~Nuzhat~~-nāma.) For further information relating to this remarkable MS. see under ~~Nuz~~ Nuzhat-nāma.

Cab | Abu Bakr ibn Badr (14th cent.) 1153

1852-60. Le Nâcéri. --- Traité complet d'Hippologie --- des Arabes. Traduit par M. Perron. 2 pts. 8vo. 3 vols. Illust. Paris. A written by a veterinary surgeon to Al-Nâser, the most brilliant of the Arabian-Egyptian rulers (1294-1341). This book records the hippic science of the Arabs at its best period. [O.]

Academia Caesarea Leopoldino Carolina ... 1871-1921.

See, Leopoldina.

also,

Academia Caesarea Leopoldino Carolina ... 1871-1921.

See, Leopoldina.

also,

1704

Academia Caesarea Leopoldino Carolina ... [1671-1681]

Bas. Leopoldina.

1704

Academia Caesarea Leopoldino-Carolina Germanica Curiosorum.
1652. Founded as Academia Naturae Curiosorum. (Akademie der Naturforscher).
1687. Academia Imperialis Leopoldina Naturae Curiosorum. (Kaiserliche Leopoldinsche Akademie der Naturforscher).
1694? Academia Caesareo-Leopoldina Naturae Curiosorum.
1712. Academia Caesareo-Leopoldina Carolina Naturae Curiosorum.
1727. Academia Caesarea Leopoldino-Carolina Naturae Curiosorum. (Kaiserliche Leopoldinisch-Carolinische Akademie der Naturforscher).
1748. Academia Caesarea Leopoldino-Franciscana Naturae Curiosorum.
1752. Reverted to title of 1727.
1859. Academia Caesarea Leopoldino-Carolina Germanica Naturae Curiosorum. (Kaiserliche Leopoldino-Carolinische Deutsche Akademie der Naturforscher).

1670-77. Miscellanea curiosa medico-physica, etc. Ann. 1-VII. 4to. Lipsiæ, etc.

1678-80. Miscellanea curiosa, sive Ephemeridum medico-physicarum, etc. Ann. VIII-X. 4to. Vratislaviæ and Bregoe. Ann. 1-X, forming 6 vols. bound in 4.

1683-92. ——— Decuriæ II, Ann. 1-X. (In 5 vols.). 4to. Norimbergoe.

1695. ——— Index generalis ... Dec. 1 and II, etc. 4to. Norimbergoe.

1694-1706. ——— Decuriae III, Ann. 1-X. (7 vols. in 4). 4to. Lipeioe, and Francofurti.

1713. --- Index generalis ... Decuriae tertiae, etc. 4to. Francofurti ad Moenum.

1712-22. Academiæ ... Ephemerides, etc. Centuria 1-X. (5 vols. in 3). 4to. Francofurti and Lipsioe, etc.

1739. —— Index ... rerum... quae in Decuriis III ac Centuriis X. Ephemeridum Academiae ... extant, adjuncta Sylloge alphabetica auctorum, etc. 4to. Norimbergae.

1727-54. Acta physico-medica, etc. Vol. 1-X (in 5).

1757—1913. Nova Acta (Verhandlungen), etc. 4to. Norimbergoe.

~~1757-1913~~ Acta Nova. Repertorium 2 vols.

1652. Founded as Academia Naturae Curiosorum. (Akademie der Naturforscher).

1687. Academia Imperialis Leopoldina Naturae Curiosorum. (Kaiserliche Leopoldinische Akademie der Naturforscher).

1694? Academia Caesareo-Leopoldina Naturae Curiosorum.

1712. Academia Caesareo-Leopoldina Carolina Naturae Curiosorum.

1727. Academia Caesarea Leopoldino-Carolina Naturae Curiosorum. (Kaiserliche Leopoldinisch-Carolinische Akademie der Naturforscher).

1748. Academia Caesarea Leopoldino-Francisceana Naturae Curiosorum.

1752. Reverted to title of 1727.

1859. Academia Caesarea Leopoldino-Carolina Germanica Naturae Curiosorum. (Kaiserliche Leopoldino-Carolinische Deutsche Akademie der Naturforscher).

1670-77. Miscellanea curiosa medico-physica, etc. Ann. I-VII. 4to. Leipsig- Lipsiae, etc.

1678-80. Miscellanea curiosa, sive Ephemeridum medico-physicarum, etc. Ann. I-X, forming 6 vols. bound in 4. Ann. VIII-X. 4to. Vratislaviæ and Bregæ.

1693-92 _____ Decuria II, Ann. I-X. (In 5 vols). 4to. Norimbergæ.

1695. _____ Index generalis ... Dec. I and II. etc. 4to. Norimbergæ.

1694-1706. _____ Decuriae III, Ann. I-X. (7 vols. in 4). 4to. Lipsiæ, and Francofurti.

1713. --- Index generalis ... Decuriae tertiae, etc. 4to. Francofurti ad Moenum.

1712-22. Academiæ ... Ephemeridæ, etc. Centuria I-X. (5 vols. in 3). 4to. Francofurti and Lipsiæ, etc.

1739. ___ Index ... rerum... quae in Decuriis III ac Centuriis X. Ephemeridum Academiae ... extant, adjuncta Syllogo alphabetica auctorum, etc. 4to. Norimbergæ.

1727-54. Acta physico-medica, etc. Vol. I-X (in 5).

1751-1913. Nova Acta (Verhandlungen), etc. 4to. Norimbergæ.

Acad. Caesar.-Leopold Nat. Cur. deut. akad. d. naturforscher. See Leopoldinisch-Carolinische

Academia das Sciencias de Lisboa.

1899/1904-date. Actas.

1857-1858. Annaes.

1854-date. Memorias.

1866-1888. Jornal. Series 1.

1889-1910. Jornal. " 2.

1917-date. Jornal. " 3.

1157

Academia das Sciencias de Lisboa.

1899/1904-date. Actas.

1857-1858. Annaes.

1854-date. Memorias.

1866-1888. Jornal. Series I.

1889-1910. Jornal. " 2.

1917-date. Jornal. " 3.

Academia Nacional de Ciencias Exactas, Cordoba, Argentine Republic.
(Buenos Ayres).

1875-1889. Actas. Vols. 1-6.

1921-date. Actas. Vols. 7 - .

1874-date. Boletin.

1920-date. Miscelanea.

Academia Nacional de Ciencias Exactas, Cordoba, Argentine Republic.
(Buenos Ayres).

1875-1889. Actas. Vols. 1-6.

1921-date. Actas. Vols. 7 - .

1874-date. Boletin.

1920-date. Miscelanea.

(R.) ACademia de ciencias exactas, fisicas
y naturales de Madrid.

1857-date. Anuario.

1850-1925. Memorias. Series 1.

1921-date. Memorias. " 2.

1847-1863. Résumen de las actas.

1904-date. Revista.

(R) Academia de ciencias exactas, fisicas
y naturales de Madrid.

1857-date. Anuario.

1850-1925. Memorias. Serie 1.

1921-date. Memorias. " 2.

1847-1857. Réumen de las actas.

1904-date. Revista.

Academia de ciencias exactas, fisico-quimicas y
naturales de [redacted] Zaragoza.

Revista, 1916 to date.

~~Can you supply before Jan. 15/20 ? Price ?~~
~~Sept. 1920. k.~~

~~See B.M. 1804.1.2.~~
~~Saragoza.~~

Academia de ciencias medicas, fisicas, y naturales
de la Habana.

Anales, 1869 - date.

1/c

~~Can you supply a complete set of the above before Jan. 15/29 ? Price ? Sept. 18/28. J.~~

(R.) Academia de ciencias y artes de Barcelona.
Actas, 1883-85.

(R.) Academia de ciencias y artes de Barcelona.
Boletin, 1840-42. 1 epoca.
Memorias, 1876- date.

cap

Academia mexicana de ciencias exactas, fisicas y haturales.
Anuario. 1895-99.

Anales. 1903-date.

Memorias. 1876-1910.

Académie Impériale des Sciences de St. Petersburg. See Akademiia Nauk, Leningrad.

Acadé
1819
1854
187
191

Académie de Metz.

1819-1852. Mémoires. Series 1.

1852-1871. Mémoires. " 2.

1871-1914. Mémoires. " 3.

1914-date. Mémoires. " 4.

Académie de Metz.

1819-1852. Mémoires. Series I.

1852-1871. Mémoires. " 2.

1871-1914. Mémoires. " 3.

1914-date. Mémoires. " 4.

Académie royale des sciences, des lettres et des beaux-arts de Belgique. (Brussels).

1835-date. Annuaire.

1832-1856. Bulletins. Series 1.

1857-1880. Bulletins. " 2.

1881-1898. Bulletins. " 3.

1899-date. Bulletins. (Suspended 1915-18).

1840-1904. Mémoires couronnés.

1769-1788. Mémoires. Series 1.

1820-1904. Mémoires. " 2.

1904-date. Mémoires - classe des sciences.

Académie royale des sciences, des lettres et des beaux-arts de Belgique. (Bruxelles).

1832-date. Annuaire.

1832-1856. Bulletins. Series 1.

1857-1880. Bulletins. " 2.

1881-1898. Bulletins. " 3.

1899-date. Bulletins. (Suspended 1915-18).

1840-1904. Mémoires couronnés.

1769-1788. Mémoires. Series 1.

1820-1904. Mémoires. " 2.

1904-date. Mémoires - classe des sciences.

1168

Académie des Sciences, Belles-lettres et arts. (Lyons).

1845-1846. Mémoires. Series 1.

1851-1892. Mémoires. Series.2.

1893-date. Mémoires. " 3.

Acadé
Kra

Académie des Sciences de Cracovie. See Akademija umiejetnosci, Krakow.

Acadé

Académie des Sciences. (Paris). See Institut de France, Paris.

Académie des Sciences (Paris). See Institut de France, Paris.

~~Académie de l'Institut de France~~
Sciences de
~~Mémoires~~. 1901–22.
~~Ser. IV, Vols. 7–12; Ser. V. Vols. 1.2.3, pt. 1–9 and Jan. 1922.~~

1171

Académie des Sciences de l'Institut de France.
1901–22. Mémoires. Series IV, Vols. 7–12: Ser. V,
Vols. 1.2.3, pt. 1–9, and Jan. 1922. Paris)

1172

Académie des Sciences, Paris.
1924-5. Inventaire des periodiques scientifiques des bibliothèques de Paris. Paris., Masson. 4 pt.
By A. Lacroix and others.

Academy of Natural Sciences of Philadelphia.

1817-1842. Journal. Series 1.

1847-1918. Journal. " 2.

1841-date. Proceedings.

1824-1828. Report of Transactions.
1921-3. Annual Report. Earlier reports in Proceedings.
1922-date. Special publications.

1923-date. Yearbook.

☐ Biological and microscopical section.

1922-date. Contributions.

Academy of Natural Sciences of Philadelphia.

1817-1842. Journal. Series 1.

1847-1918. Journal. " 2.

1841-date. Proceedings.

1824-1828. Report of Transactions.

1922-date. Special publications.

1923-date. Yearbook.

Biological and microscopical section.

1922-date. Contributions.

1174

Academy of natural sciences of Philadelphia.
1853. Catalogue of the ōological collection.
~~in the Academy of natural sciences of Philadelphia~~. ~~By A.L. Heermann~~. See Heermann, A.L.

Academy of Sciences, Pasadena, California
1897-8. PUBLICATIONS I-III.

~~Can you supply ? Price ?~~ ~~Sept. 18/18.~~

Academy of Science of St. Louis.

1856/60-date. Transactions (includes Proceedings).

Academy of Science of St. Louis.

1856/69-date. Transactions (includes Proceedings).

Acp

Accademia degli aspiranti naturalisti, Naples.

1843-1846. Annali. Series 1.

1847. Annali. " 2.

1861-1866. Annali. " 3.

1867. Annali. " 4.

1868-1869. Annali. Second era.

1887-date. Annali. Third era.

Accademia degli aspiranti naturalisti. Naples.

1843-1846. Annali. Series 1.

1847. Annali. " 2.

1861-1866. Annali. " 3.

1867. Annali. " 4.

1868-1869. Annali. Second era.

1887-date. Annali. Third era.

(R) Accademia dei Fisiocritici. (Siena).

1760-1841. Atti. Series 1.

1862-1870. Atti. " 2.

1873-1885. Atti. " 3.

1889-1908. Atti. " 4.

1909-date. Atti. " 5.

1883-1888. Bollettino.

1894-date. Processi Verbali delle Adunanze.

1877-1881. Rapporti e Processi Verbali.

1869-1872. Revista Scientifica.

(R) Accademia dei Lincei, Rome.

1870-1873. Atti. Series 1.

1873-1876. Atti. " 2.

1876-1884. Memorie. Series 3.

1884-1890. Memorie. " 4.

1884-1891. Rendiconti.

1892-1924. Rendiconti. Series 5.

1925-date. Rendicnoti. " 6.

1876-1884. Transunti.

(R) Accademia dei Lincei, Rome.

1870-1873. Attii. Serias 1.

1873-1876. Attii. " 2.

1876-1884. Memorie. Serias 3.

1884-1890. Memorie. " 4.

1884-1891. Rendiconti.

1892-1924. Rendiconti. Serias 5.

1925-date. Rendiconti. " 6.

1876-1884. Transunti.

cross ref

1180

Accademia scientifica veneto-trentino-istriana, Padua, Atti.
1872 to date.

~~Also, ATTI della Classe di Scienze naturali etc. (2)~~
~~1903-07. (all pub.)~~

1780

Accademia scientifica veneto-trentino-istriana, Padua. AC[illegible].
1912 to date.

Atti, 1771 della Classe di Scienze naturali etc.
1903-07. (all pub.)

R. Accademia delle Scienze dell'Istituto di Bologna.
MEMORIE, ~~#####~~ 1850-1907. Continued as Memor.
delle Classe di Scieze fisiche, 1908-date.
Index, 1850-79.

~~BLACKER.~~

~~NUOVI ANNALI dell. sc. nat. e Rendiconto della~~
Classe di scienze fisiche. ~~Koehler 21-27. M110~~
~~Can you supply these before Jan. 15/29 ? Price ?~~
~~Sept. 18/28.k~~

~~Koehler offers Memorie for — M24.00~~
~~Doubtful. Sc. fisiche — ? not found Zurbuch~~
~~Too dear also~~ No order

1811

~~Sc. 309, Cat. 4~~

Siena

Accademia delle Scienze di ~~Siena~~, ATTI.
1761-74. Vols. I-V.

~~March 4 28 Order 10th dis. twice mo Call~~

~~See also Atti &c.~~

(R.) Accademia della scienze di Torino.

1865-date. Atti.

1759-1838. Memorie. Series 1.

1839-date. Memorie. " 2. (Wanting),

(R) Accademia della scienze di Torino.

1862-date. Atti.

1759-1870. Memorie. Series I.

1870-date. Memorie. " 2. (Wanting)

Acclimatisation and Ornithological Society of London.
Annual report. 1860-68. Lond.
1-5 (1860-1864) title reads: Annual report of the Society for the Acclimatisation of Animals, Birds, Fishes, Insects, and Vegetables, within the United Kingdom.
1-5 (1860-1864) half-title reads: Acclimatisation Society of Great Britain, Ireland, and the Colonies.
6 (1865) title reads: Annual report of the Acclimatisation Society of Great Britain, and Ornithological Society of London.
In 1865 united with the Ornithological Society of London.
Although this Annual Report is not exclusively devoted to ornithology, and should perhaps, on that account, be excluded from this catalogue, yet the larger number of the contributors and the contributions deal with birds. Although essentially popular, the Society membership numbered many scientific zoologists.

.1185

Acclimatisation Society of Great Britain, Ireland and the Colonies, See Acclimatisation and Ornithological Society of London.

Ackermann, Karl. (1841 – 1913).
Thierbastarde. Theile I und II.
1898. 8vo. Kassel.

~~In library~~

One of the few works on hybridization of animals.

1186

Expt
Acloque, Alexandre (1871 — .)

1895–1900. Faune de France etc. 4 vols. Illust. 8vo. Paris

A ~~very important~~ scientific treatise. ~~Decades~~ All the indigenous vertebrates are systematically described in Vol I, pp. 7 + 548, text figures, and in Vol. IV. ~~Volume IV is devoted to mammals and birds.~~ Several of the above volumes, under separate heads, as have also been separately published.

[illegible]

1900. Faune de France, contenant la description des espèces indigènes. Vol..1 12mo. ill.

Paris.

~~039.A184~~

Contents. v.1. Mammifères, oiseaux, poissons, reptiles, batraciens, protochordes.

Acosta, Joseph de. (1539-1600.)

1590. Historia natvral y moral de las Indias, en qve se tratan las cosas notables del cielo, y elementos, metales, plantas, y animales dellas: y los ritos, y ceremonias, leyes, y gouierno, y guerras de los Indios. Compuesta por el padre Joseph de Acosta religioso de la Compañia de Jesus. Dirigida a la serenissima infanta Doña Isabella Clara Eugenia de Austria. Seuilla, Impr. en casa de Iuan de Leon, 1590.

535, [36] pp. 21cm.

(Continued on next card)

2-1938—M 2

Acosta, Joseph de. Historia natvral y moral de las Indias . . . 1590. (Card 2)

Books 1–2 appeared originally in Latin under title "De natura Novi orbis libri duo," 1588–89.

Subject entries: 1. America—Early accounts to 1600. 2. Spanish America. 3. Indians.

2-1938—M 2

Library of Congress, no. E141.A22.

The library copies of this famous work on the natural history of the West and East Indies are in several languages - including English. It is one of the earliest and fundamental American treatises on natural history.

1789.

~~Acosta, José d' (1539-1600)~~
1598. Histoire Naturelle -- traduite en Francois
etc. Paris. ~~8vo.~~ 8vo.(Marc Orry pub.) ~~£1.15/15/~~
~~MACGS Cat. 236. IS THIS IN LIBRARY ?~~

e/

A Other French Translation.

1800

Historie Naturael ende Morael van de Westersche
Indien. (1598.) Black Letter Dutch. ~~— 10/10-6~~
~~MARCH 6AB. F 237. IS THIS IN LIBRARY ? May 10/29.~~

A Dutch edition of this justly celebrated work.

1911.

~~BLACKER~~

1604. The Naturall and Morall Historie Of the East and West Indies. (FIRST ENGLISH EDITION.) -- ~~# L12/0/~~ ~~MACGR Cat. 23/.~~ ~~NOT ONE IN LIBRARY ? May 10/29.~~

4c

~~Acosta, Jose de~~ ~~Blaeuw.~~
1608. Historia Natural y moral de las indias etc
~~Valencia.~~ Madrid. 4to. ~~Hay. 12/29. -- Hasp.~~
~~Karl Hiersemann Cat. 354, # 957.~~
~~Order if not in lib.~~

A comparatively late Spanish edition

Acta Nov
See Ac

1.1194

Acta Nova d. Academia Caes. Leopold-Carol. German naturae curios.
See Academia Caes. etc.

Acta Nova d. Academia Caes. Leopold-Carol. German naturae curios.
See Academia Caes. etc.

Actas d. Classe de Sciencias math., physicas e naturaes. See Academia das sciencias de Lisboa.

1193

Actas d. Classe de Sciencias math., physicas e naturaes. 800

Academia das sciencias de Lisboa

1196

1892-1914.

Acta Societatis pro Fauna et Flora Fennica. See Helsingfors.
Societas pro Fauna et Flora.

Actas. Classe de sciencias math., physicas e naturaes.
See Academia das sciencias de Lisbõa. 1899 to date.

Actas d. (R) Academia de ciencias y artes de Barcelona. See
(R) Academia de ciencias ..... Barcelona. ~~1883-85.~~

I epoca (1840-42.

ACTA Universitatis Lundensis. Section Mathem. and Nat. Sc.

1905-11. New Series. Vols 1-7.

1869-71.

In library

.1200

Acta Zoologica fennica.

Vols. 1–3. Helsingfors.

Acta Zo
1920
Vols.

cards

Acta Zoologica. Intern. Tidskrift etc. Stockholm.
1920 ---- date.

Vols. I-VII. ~~received from W. and W. ---- L 20.0.0.~~
~~Have arrangements been made and with whom for continuation ? Pl. reply. Aug. 9/28.~~

~~Wheldon & Wesley are supposed to furnish a list of~~
~~Aug. 9.28. For the present set this aside. Periodicals to be~~
~~sent to date~~

Check this title.

caps

Actes de la Société Helvétique des Sciences Naturelle.
1825 to 1920. See Allgemeine Schweizerische Gesellschaft
fuer die Gesammten Naturwissenschaften.

Actes de la Société Linéenne de Bordeaux. 1831 to date. See Bordeaux.

1203

Actes de la Societe Linneenne de Bordeaux. 1841 to date. See
Bordeaux.

Adam, Victor.

1204

1852. See Buffon, G.L.L. Histoire naturelle &c. Illustré ... de 150 dessins de Victor Adam. Oiseaux.

V. Adam nat. B. Pg.

1867.

8vo.

V69
.A22

Adams, Andrew Leith, d. 1882. (1826-83).

Wanderings of a naturalist in India, the western Himalayas, and Cashmere, by Andrew Leith Adams ... Edinburgh, Edmonston and Douglas, 1867.

xi, 333 p. front. 20½cm.

pp. XI+(1)+333. front. T. of C. Index.

Edenburgh.

1. Natural history—India. 2. India—Descr. & trav.

Library of Congress QH183.A2 6-7173†

An interesting account of the author's seven years sojourn in the East - with frequent change of place - he being a surgeon in the army. References to birds are very numerous and occur throughout the volume.

(H.)

1206

M
A23n

Adams, Andrew Leith, d. 1882. (1826-82)

1870. Notes of a naturalist in the Nile Valley and Malta, a narrative of exploration and research in connection with the natural history, geology, and archæology of the lower Nile and Maltese Islands. By Andrew Leith Adams ... Edinburgh, Edmonston and Douglas, 1870.

xvi, 295 p. illus., 14 pl., map. 21cm.

Publisher's lettering: Natural history and archæology of the Nile Valley and Maltese Islands.

1. Natural history—Egypt. 2. Natural history—Malta. 3. Paleontology—Malta. 4. Malta—Antiq.

8vo.

pp. xvi + 295. front. 10+[3] pl. map (col.) T. of C. Index.
Edinburgh.

Library of Congress QH195.E4A2 8-402

An account of the fossil remains, migration and complete list of the birds to be found on the islands of Malta.

1873.

~~M89~~
~~A231~~

~~Adams, Andrew, Leith, d. 1882~~

8vo.

Field and forest rambles, with notes and observations on the natural history of eastern Canada. ~~By A. Leith Adams ...~~ London, H. S. King & co., 1873.

xvi ,333 p. illus., 2 plates (incl. front.) 2 fold. maps. 23cm.

~~Title vignette.~~

pp. XVI + 333. front. Vignette. 25 figs. 4 maps (1 col. fold.).
T. of C. Append. Index.

1. New Brunswick — Descr. & trav. 2. Zoology — New Brunswick. 3. Geology — New Brunswick.

London.

~~Library of Congress~~ ~~QL50.A21~~ ~~4-28283~~

Field studies made principally in New-Brunswick during three years' sojourn 1866-68. References to birds are very numerous pp. 117-198, 285-294, with a list of the birds of New Brunswick in the appendix, pp. 296-302.

~~(Fish.)~~

1207

1848-50.

QA
A211

Adams, Arthur, 1820–1878, *ed.*
The zoology of the voyage of H. M. S. Samarang; under the command of Captain Sir Edward Belcher ... during the years 1843–1846 ... Ed. by Arthur Adams ... Pub. under the authority of the lords commissioners of the Admiralty. London, Reeve and Benham, 1850 [1848–50]

xv, [250] p. 55 pl. (35 col.) 31½ cm.
Each section has special t.p. and separate pagination. Imprint on special title pages: London, Reeve, Benham, and Reeve.
CONTENTS.—Preface.—References to plates.—*Vertebrata*, by J. E. Gray. 1849.—Fishes, by Sir J. Richardson. 1848.—*Mollusca*, by A. Adams ... and L. Reeve. 1848.—*Crustacea*, by A. Adams and A. White. 1848.
1. Zoology—Oceanica. 2. Belcher, Sir Edward, 1799-1877. 3. Samarang (Ship) I. Gray, John Edward, 1800-1875. II. Richardson, Sir John, 1787-1865. III. Reeve, Lovell Augustus, 1814-1865. IV. White, Adam, 1817- V. Gt. Brit. Admiralty.
Library of Congress QL5.S2 6-7632

Ed. 1848 / Samarang

This famous Voyage added much to our knowledge of vertebrates that were described by J. E. Gray, the fishes being reported upon by Sir J. Richardson.

See also, Samarang.

Opp. new line

580868